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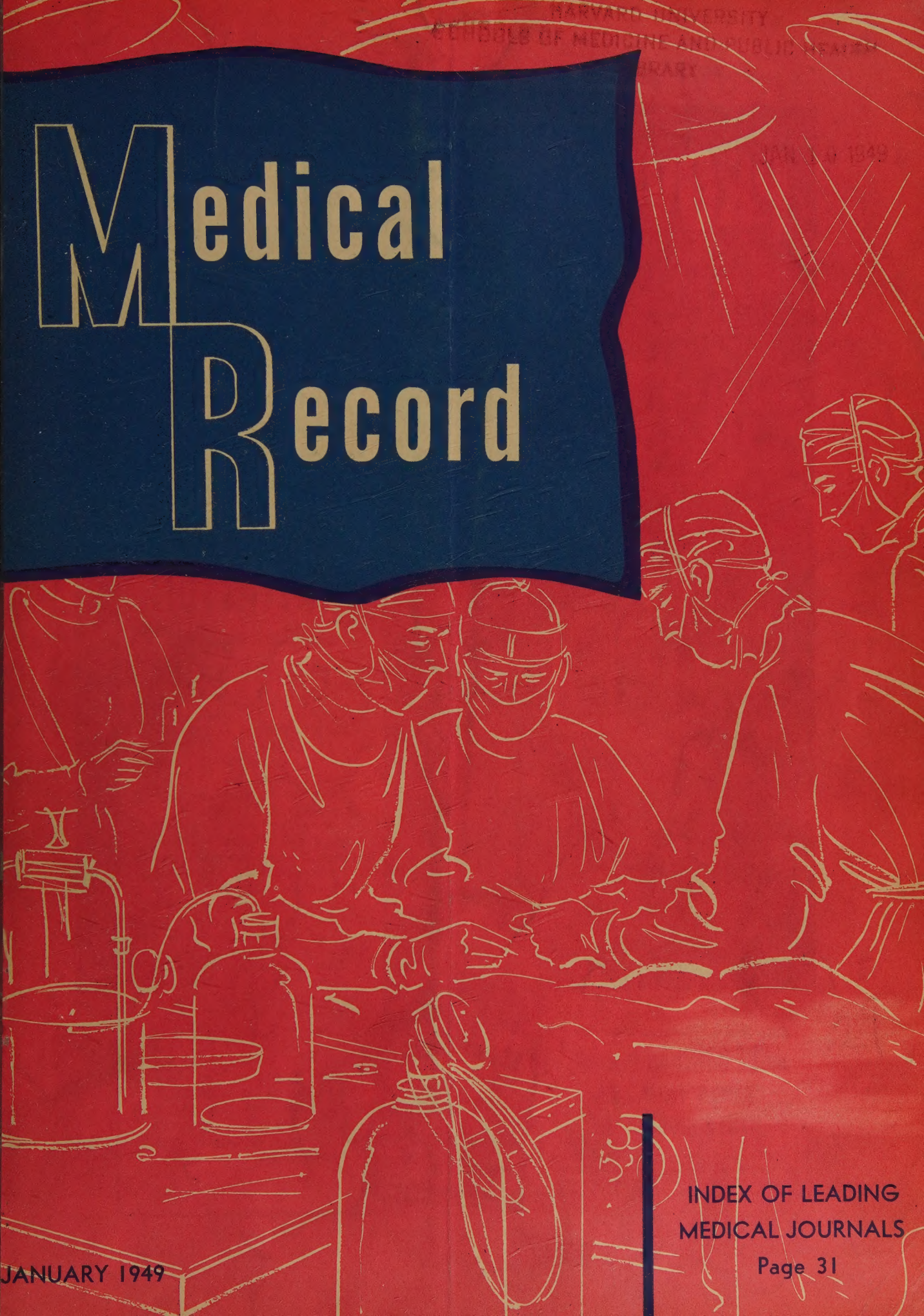

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JANUARY 1949

PROVE CAMEL MILDNESS *for Yourself!*

Test for yourself what throat specialists reported when a 30-day smoking test revealed:

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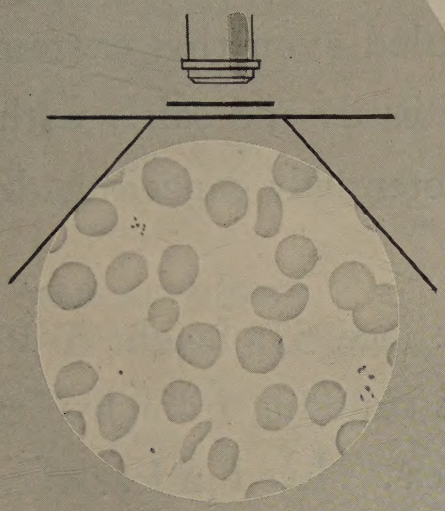

LIVITAMIN WITH IRON

The Blood Picture Responds More Quickly

JAN 10 1949

While iron is essential for hemopoiesis, recent findings give evidence of the important role in blood formation played by B-complex vitamins and certain factors occurring in fresh liver concentrate. This approach may be considered as "Supported Therapy," from which rapid correction of both the blood picture and the systemic manifestations of anemia may be expected.

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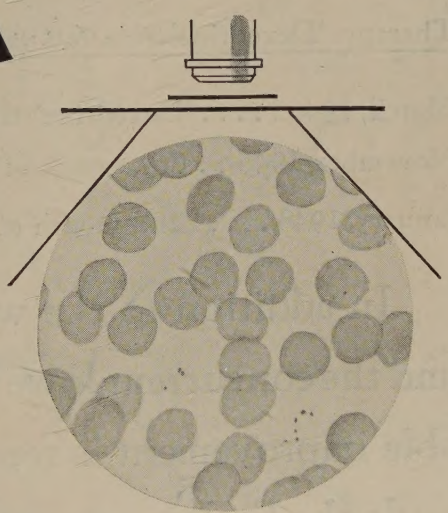
(Equiv. to 140 mg. elementary Iron)
Thiamine Hydrochloride (B_1)..10 mg.
Riboflavin (B_2, G).....5 mg.
Nicotinamide (Niacinamide)...25 mg.
Pyridoxine Hydrochloride (B_6)..1 mg.
Pantothenic Acid.....5 mg.
Liver Concentrate 1:20.....45 gr.
(Represents 2 oz. fresh liver)
Rice Bran Extract.....15 gr.



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In addition to the weight reduction of 118 pounds and the concurrent lowering of blood pressure, a remarkable improvement is reported in the patient's mood and outlook. Earlier nervousness and fears have vanished.

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FOX—SHULMAN PUBLICATIONS

JANUARY, 1949

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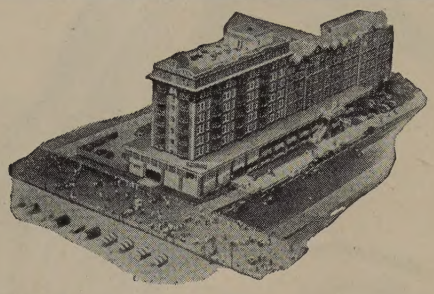

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American Medical Writers' Association

At the Fifth Annual Meeting of the Mississippi Valley Medical Editors' Association held at Springfield, Ill., during the Mississippi Valley Medical Society Meeting radical changes were voted in the Association's constitution including the adoption of a new organization name—the American Medical Writers' Association. The new name more clearly expresses the purpose and scope of the organization.

The purpose is defined as: (a) to bring into one organization all physicians interested in medical journalism or medical writing, and all laymen who are connected with the editorial or business staff or medical periodicals, libraries, foundations, or publishing companies; (b) to help improve medical literature; (c) to secure interchange of views of the members so that they may attain such intelligent unity and harmony in every phase of their labor as will elevate and make effective the opinions of the medical profession in their respective communities.

Meeting Of Association Of Life Insurance Medical Directors Of America

The 57th Annual Meeting of the Association of Life Insurance Medical Directors of America was held on October 28 and 29 at the Hotel Pennsylvania in New York City.

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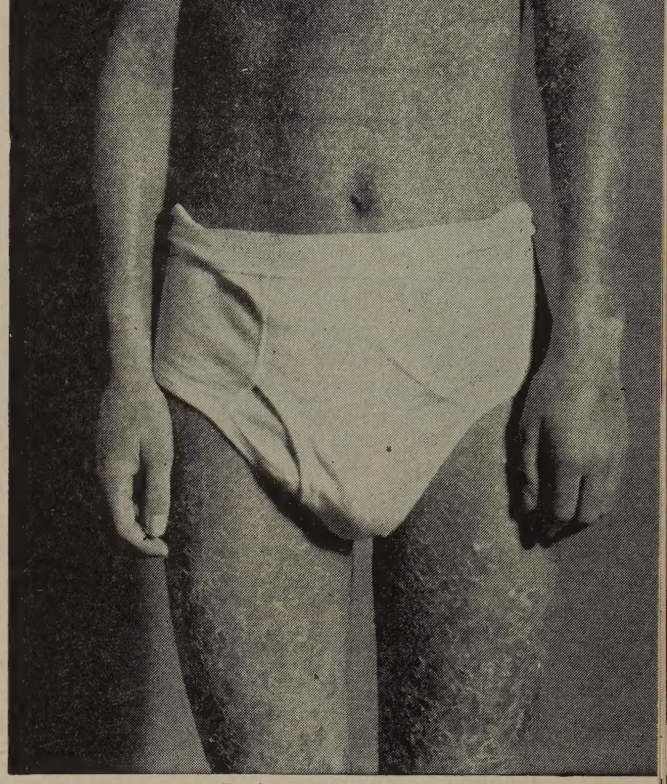

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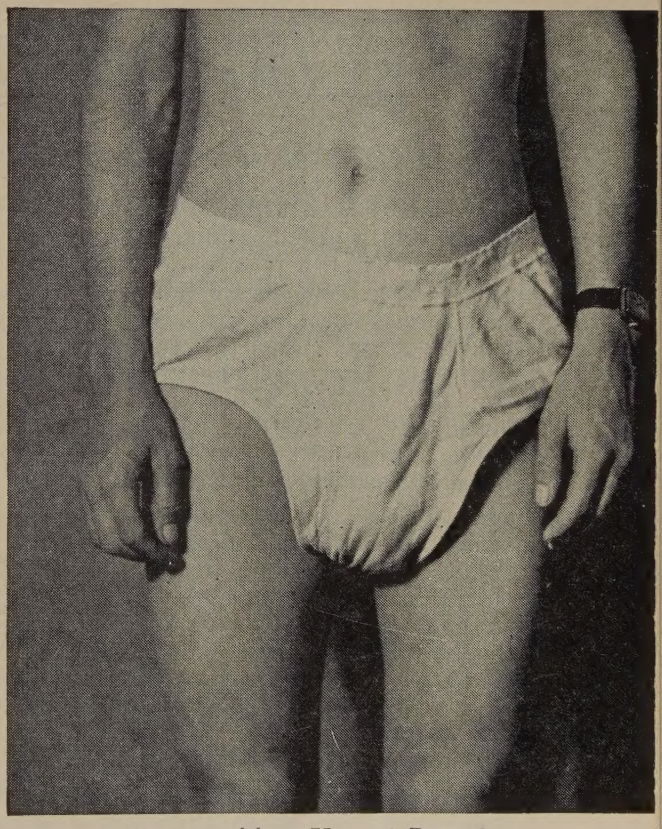

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Critique

Tagged Atoms Revealing

According to the Fourth Semiannual Report of the Atomic Energy Commission, tagged atoms are very revealing of dynamic life processes. For instance, experiments with radiosodium provide a measure of their speed. By tagging sodium chloride with sodium 24 and injecting this into the human body it has been found that the salt diffuses through the walls of the veins, is transported to the sweat glands, converted into sweat, and carried to the body's surface in less than one minute! It has also been demonstrated that the transfer of fluid in and out of human veins is so rapid and continuous as to transport as much as 50 pounds of sodium chloride daily.

Obviously we not only are not the same persons we were seven years ago; we are never today the same person we were yesterday. Biochemical reactions quickly build up and tear down tissues, but they are so delicately regulated that every structure maintains its characteristic form and composition inviolate. The total volume of all bodily ingredients remain the same. Metabolic changes are everywhere continuous through the human body, but in health, each part always remains the same, demonstrating the classic concept of the body as a mechanical engine.

But modern tracer investigation has already modified this concept. The body, instead, is much more comparable to a military regiment, retaining its size, form, and composition while the individual elements of which it is composed undergo constant change. They join up, are transferred from post to post, are promoted or demoted, become keystone segments or are ejected as waste debris—for all finally depart after a certain period of service. Can a man then properly be held today accountable for criminal acts of yesterday, last month, or even an hour ago—when he is never the same man for two consecutive instants?

Tracer diagnosis

Today there are isotope labels for all fundamental life elements, labels which can readily be distinguished from the normal material by the observer, but which distinctions, the physiological processes disregard. Biologists have used these isotopes to trace alcohols, amino acids, antigens, bacteria, bile acids, blood cells, carbohydrates, carcinogens, enzymes, fats, fatty acids, hormones, insulin, nucleic acids, penicillin, pharmaceutical agents, proteins, starches, sulfa drugs, tissue fluids and salts, viruses, and vitamins.

Some malignant, abnormally growing tissues absorb certain elements in the body, such as phosphorus and iodine, faster than normal, others more slowly. Cancer specialists take advantage of these facts in localizing tumors. University of California Medical School and the Cook County Hospital have used radiophosphorus to locate cancer of the breast, the radiations assisting because malignant growths absorb phosphorus at a slightly greater rate. The University of Minnesota Medical School is using a radioiodine compound to determine the location of brain tumors. Nine institutions have observed that radioiodine is useful in the diagnosis of thyroid cancer and in the location of metastases. The thyroid gland picks up and utilizes nearly all the iodine in the human system—normally about 80 times as much as any other tissue, a fact established by tagged atoms.

Columbia University College of Physicians and Surgeons is using radioiodine to diagnose hyper- and hypothydroidism. The Mayo Clinic is conducting precise studies of the body's use of iodine to set up exact standards. Johns Hopkins Hospital is using tracer methods for the early diagnosis of cretinism. Harvard's Beth Israel Hospital also reports extensive diagnostic work with iodine. All told nearly fifty hospitals and clinics in the United States have received shipments of radioiodine from Oak Ridge.

Statistics: Plato's American Republic

by Douglas Woodruff, quotes Socrates as saying: "So I did excuse him, for I knew that the man was intoxicated, not indeed with wine, but by statistics, for the Americans find in statistics a drug more powerful than alcohol, the women shamelessly revealing their craving and attending lectures, and crying out for facts, but meaning these numbers. For all large numbers and all numbers arranged in patterns have a magical power over them. And they will eagerly deny their own personal experience if it seems to upset what the statistics say . . . Pitiable indeed, but they wear these chains of numbers proudly, for in general the numbers are large. And they have no notion that these numbers must be used with care, but will let themselves be led into an error by any cunning piper luring them to destruction, provided only he can pipe the proper magic ciphers and talk to them of percentages. For these statisticians have more power to make great crowds follow than ever Orpheus had."

Raised eyebrow department

The *Lancet* for March 15, 1930, reported on page 586 unequivocal results of ovarian hormone therapy when tried on 80 cases, of which 30 were said to demonstrate objective improvement. Oestrin was used. The conditions treated were amenorrhoea, patients without ovaries, and others in whom induction of labor was difficult. Did ovarian substance ever accomplish anything objective in such circumstances?

Cut drug costs

Dr. Ernest E. Irons, in 1930, advised the Congress on Medical Education and Hospitals to cut hospital costs by using standard drugs instead of proprietaries, declaring "The shelves in some hospital pharmacies remind one of the exhibits of proprietary medicines in a chain-drug-soda-fountain-lunchroom." He said that the patients then continued to use drugs with advertised names after they left the hospitals, and he cited one who irreparably injured his liver thus. Most trade-marked brands of drugs simply conform to U.S.P. and Food and Drug Administration standards; they are not better; they are just costlier. When many brands of the same

drug have to be stocked this endless duplication ties up a lot of money and also increases hospital costs.

State medicine

Now that a nation-wide medical service has been inaugurated in Great Britain, the following from the British *Medical Officer,* March 15, 1930, has special interest: "A State Medical Service which would satisfy everybody, free from the abuses its opponents fear, embodying the principles its adherents desire and giving to mankind the best that medicine can give, without restrictions and without delay, is conceivable. Being conceivable it is feasible, and can be brought about if each and every one of us will do something to ensure that no advance is made which is not completely satisfactory. For though it is comparatively easy to go forward, it is difficult to retreat.

"The chief reason for a State Service is financial. The men in rich practices, the successful consultants, and the magnates of the Royal Colleges, know very little of the financial wrongs of modern medicine. The rank and file of the profession do know them, that the sick cannot pay for treatment and the doctors cannot get paid for what they know they should do and are desirous and competent to do. Medicine is not an expensive service and the community can pay all the profession desires or expects. But at present, the profession has to be paid chiefly by those citizens who are down and out, at all events temporarily; paid mainly by those who are least able to pay, and at a time when even the comparatively well-to-do are in embarrassment. So the doctor, with the best will in the world, is restricted; he must think of what his patient can afford, not what his patient needs. He gives the best he can at the price he can get. He must be hard on his patient, or on himself, but great as is the philanthropy of the profession, doctors must live.

"The main work of the medical practitioner is judgment, and fair judgment is impossible without absolute freedom of action. The doctor must be free to do his work without restriction, and in order to judge correctly he must have his evidence laid bare. He must have the complete confidence of his patients and the confidence must be respected. The opponents of a State Service fear that these two first essentials must perish. They have every reason to fear that they will perish unless they act with determination to see that they do not; but they are perfectly able to retain them unimpaired if they work for that object. . .

"Unfortunately the mere discussion of this subject is so much resented by private practitioners that it has never received anything like serious consideration. Even the opponents of a State Medical Service will tell us that its coming is inevitable, but they refuse to face the conditions to which it will give rise, or to take any part in shaping the course of events." This article argued in conclusion that the medical profession itself should intelligently devise the State Service then, and not permit ignorant bureaucrats to inflict it upon the profession later. The author hoped that the profession would plan its own future dispassionately. It did not in Britain; it has not done so here.

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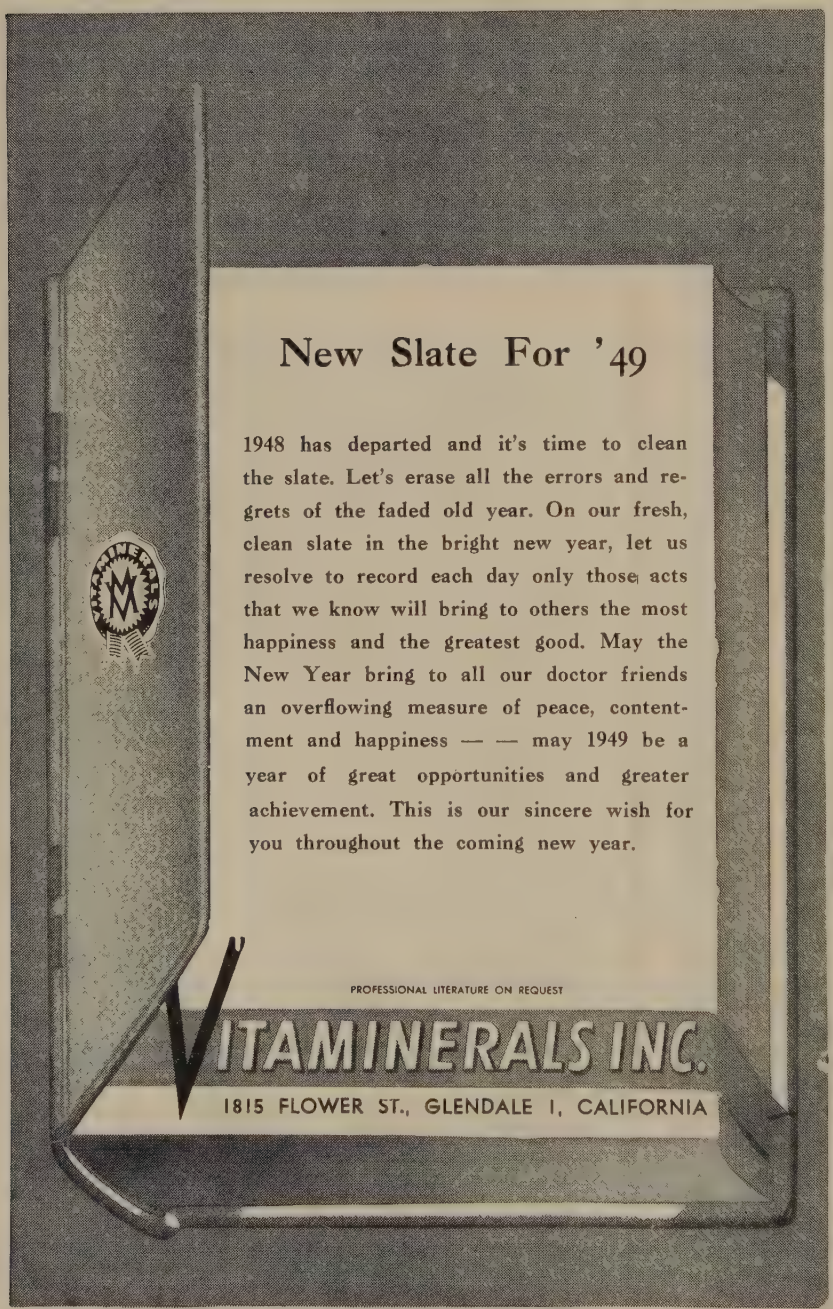
Habit, psychology, and the new

Habit and psychological factors greatly retard the diffusion of innovations. The accepted authorities disdained to accept Dr. Bouillaud's discovery, in 1825, of a speech center in the brain and speech cerebral localization had to wait 50 years for appreciation. Virchow derided scientific dogmatism in the first number of his "Archives," but later himself assumed infallibility, declined to see anything in Charcot's ataxic symptoms of the joint, and held to the theory of the duality of tuberculosis; he also opposed the Darwinian theory and the new theories of Behring and Koch regarding toxins and antitoxins. Thomas Addison's book on the ductless glands was received incredulously and anesthesia and its chief advocate, James Simpson, were opposed flippantly by William Gull. Simpson opposed Lister and the theory of antisepsis. Gamgee ridiculed the idea that Texas fever was caused by ticks, and so did many others. Baumgardten, Emmerich, and Koch opposed Metchnikoff's phagocytes. Patrick Manson and Carlos Findlay said that mosquitoes simply could not carry disease.

Medical education has often lagged because medical books are costly. Economic interests retard medical and other discoveries. Dissection, Harvey's theories on blood circulation, vaccination, the Holmes-Semmelweis theory of the contagious nature of puerperal fever are examples. Pasteur and his discoveries, Lister and his antisepsis, had hard battles against determined opposition.


New Slate For '49
1948 has departed and it's time to clean the slate. Let's erase all the errors and regrets of the faded old year. On our fresh, clean slate in the bright new year, let us resolve to record each day only those acts that we know will bring to others the most happiness and the greatest good. May the New Year bring to all our doctor friends an overflowing measure of peace, contentment and happiness — — may 1949 be a year of great opportunities and greater achievement. This is our sincere wish for you throughout the coming new year.
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Income

Along with other papers, a Washington daily in April 1930, published the detailed $48,475 annual budget of a New York banker who stated that this was the absolute minimum upon which he could support himself and wife. At the same time $2,180 was found by experts in the Bureau of Labor Statistics to be the minimum necessary to support a laborer with the average family of five in what was quaintly called "health and decency." Thereupon a custom's clerk wrote in to the paper and asked how he was supposed to support his family of six on his annual income of $1,600.

Iron absorption

Work with radio isotopes supplied by the Atomic Energy Commission has shown that iron-deficient individuals absorb more iron than normals; patients with various anemias may absorb relatively large quantities of iron in spite of adequate stores; small but definite quantities of iron are regularly excreted by the intestinal tract. Hence the mammalian organism can excrete iron other than by hemorrhage. The currently held theory that the intestinal mucosa, influenced by the bodily iron stores, acts as a major regulator of iron metabolism by accepting or rejecting iron as needed is now open to question.

THE CRITIC.

Brucellergen and Brucellin Antigen

Sharp & Dohme, Inc., Philadelphia drug manufacturers, announced the national release of Brucellergen and Brucellin Antigen, two new products useful in the diagnosis and treatment of brucellosis (undulent fever). This product is supplied in vials containing 2 cc. of the Antigen.

MEDICAL RECORD

PUBLISHED MONTHLY BY
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VOL. 162, No. 1 JANUARY, 1949 WHOLE No. 2791.

PSYCHOLOGY OF THE KILLJOY

EDMUND BERGLER, M. D.
New York

One inch of joy surmounts of grief a span,
Because to laugh is proper to the man.
—Rabelais.

The definitions as to what constitutes a killjoy, are unsettled. Webster, f.i., defines him as "one given to gloomy moods; a person of sullen disposition." The popular connotation is different, as pointed out to me by a patient, a writer, "To my mind, a killjoy is a sourpuss exhibiting his gloomy pleasure of interfering with other people's pleasures exactly at the time when the latter try to enjoy themselves." The German equivalent comes nearer to that meaning: "Spielverderber" means a spoiler of games.

What is the difference between both definitions? In the first the accent is on the gloomy disposition, in the second on the pleasure of spoiling other people's fun." The first takes the killjoy as victim of an unhappy disposition, the second as pleasure-hunter of a specific type, though it concedes to him the gloomy mood. Whether or not the killjoy is considered first a misanthrope and only secondarily an extractor of his brand of fun, because no other pleasures are accessible to him, or the other way around, remains unclear.

In clinical psychoanalysis we are frequently confronted with neurotics who are considered by their specific environment as killjoys. That diagnosis is, however, never made by the killjoy himself. The most one can learn from him directly, is the complaint that he is depressed and cannot partake in the conventional pleasures of his friends and acquaintances. The first question which confronts us, reads: what prevents the killjoy from assessing himself correctly?

Here are a few statements of the immediate environment of the killjoy. Mrs. A.: "My husband is a chronic spoiler of harmless fun. He has a peculiar ability of freezing people. He uses two tricks: he is either silent—and I mean the 'stony'-silence variety —when other people try to joke and have some fun, or, he makes derogatory and ironically biting remarks about the fun proposed or enjoyed by others. The strange thing is that he seems not to be conscious of his frigidaire attitude. If I reproach him, he answers that he was perfectly amiable." Mrs. B.: "My husband knows only one form of conversation with people: to hear himself talk. Who can stand that? I read somewhere a joke defining conversation as a vocal competition in which the person who is catching his breath is called the listener. Which indicates very correctly that in a conversation everybody wants to talk and resents monopolizing the floor by one fellow alone. To top the difficulty, my husband is interested in his few chosen topics exclusively. That makes it even worse. For a long time it was impossible for me to convince him that he bores people, is intolerant and a killjoy. Finally, he became cynical in these arguments, quoted Disraeli: 'If I want to read a book, I write one.' He claims that he can endure people only on condition that he hears himself talk." Mr. C.: "My wife is a snob who intimidates people. She runs around—without knowing it—with the attitude of Queen Victoria: 'We are not amused.' She misuses my social position to be arrogant, hence directly damages me. People don't believe my joviality with my staff which is one of cameraderie. My attitude is real enough, but people believe that I pose only because my wife is cold, bored, killjoying everything."

All three people were analyzed. The common denominator of the killjoy-attitude was—as far as *descriptive* characterization goes—this:

1) the killjoy is not conscious of being one.
2) he lacks the amiable sense of humor built on the principle: live and let live.
3) he commands regularly a biting irony directed with venom against people who have any kind of harmless fun.
4) characterologically, the killjoy impresses one as a depressed person.
5) the killjoy seems to derive some surreptitious

pleasure from "freezing" other people, by either pointing out in a derogatory way the low level of their fun, or, by conspicuously not laughing at their jokes.

6) he gives the impression of a stern and disgusted governess, confronted with a bunch of silly children.

These six descriptive signs correspond to a complicated unconscious substructure.

There exists a psychic phenomenon, described by the writer[1] in previous publications as *"negative magic gesture."* The term denotes unconscious dramatization of how one did *not* wanted to be treated in early childhood. It constitutes a reduction to absurdity, executed via exaggeration. A caricaturistic mimicry is set into motion. The whole process is, of course, unconscious.

Analyzing magic gestures of that type—there exist different types—one finds with greatest of regularity the following psychic structure:

The child left the nursery with a neurotic fixation to the rejection attitude. That is strange, per se, for everybody not familiar with the phenomenon of *"psychic masochism."* There are neurotics whose unconscious aim in life is to be mistreated, rejected, humiliated, denied. That fact is mostly unknown; as far as masochism is taken cognizance of at all, the show is stolen by *perversion* masochism. The latter term denotes *conscious* acceptance of these "queer" aims, whereas the phychic masochists rejects all that in consciousness, though he railroads himself unconsciously in situations where he "enjoys" these humiliations with the inner alibi that he "hates" them, as "proven" by his constant complaints. A "negative magic gesture" is one of many ingenious unconscious defenses built after the principle of eating one's cake and having it, too.

The mechanism consists of the following layers:

1) confronted with "fun," experienced by other people, the neurotic of that type is painfully reminded of his own real or fancied disappointments going back to the time where he wanted to have some "fun in the nursery." That pleasure was inhibited in his opinion by the upbringer. Instead of compensating later in life for infantile frustrations—the technique of normal people—he repeats the disappointment: the psychic masochism acquires secondarily the validity of an unconscious wish.
2) the inner conscience objects to that wish.
3) under pressure of guilt, a defense mechanism is instituted: "I don't want to be mistreated, I hate the disappointer."
4) the inner conscience vetoes the aggressive defense, too.
5) A secondary defense is built, according to the formula: "I want to show them (authorities in nursery) how badly they treated me."

The fifth layer constitutes the "negative magic gesture."

This deduction explains a series of contradictions in killjoy's behavior. For instance:

It explains, first of all, why the killjoy is not conscious of being one. The reason being that his aggressive behavior corresponds to the vetoed layer 3) of the genetic structure. The killjoy who tries to smuggle in as much aggression in his behavior, as possible, must, however, at the same time, disguise any aggression, since the latter was forbidden by the inner conscience. Inwardly, he dwells upon exactly that aggression, simply because it disguises in a deeper layer his basic conflict: psychic masochism. Analytically, that aggression is but defensive pseudo-aggression[2].

It explains furthermore his lack of amiable humor of the live-and-let-live variety. He acts intrapsychically the malicious fun-forbidding educator, more, even a caricature of the latter. As less humor he shows, as graver the accusation against an infantile imago.

The descriptive impression of "acting a stern and disgusted governess," is confirmed through the genetic evaluation: he acts the caricature of such a person.

Finally, the so obvious depression is clarified: a psychic masochist is consciously the most miserable human being—mostly an inner alibi[3].

The killjoy is a specific neurotic, the opposite of a "good sport." He wasn't born a killjoy, his neurosis made him one. Hence, the process is therapeutically reversible in analysis. It is possible to change that bitter, and at the same time difficult to endure, neurotic into a human being.

1. The Problem of Magic Gestures. The Psychiatric Quarterly 19: 295, 1945.—On The Resistance Situation: The Patient Is Silent. The PsAn Review 25:182, 1938.—Thirty Some Years After Ferenczi's 'Stages In The Development Of The Sense Of Reality'. Ibidem 32: 125, 1945.—Summary in the author's book THE BATTLE OF THE CONSCIENCE, Washington Institute of Medicine, 1948.

2. For the differential diagnosis between two types of aggression, see the author's: Differential Diagnosis Between Normal And Neurotic Aggression. Quarterly Review of Psychiatry and Neurology I:I, 1946.

3. The problem of genesis of psychic masochism is highly complicated. See THE BATTLE OF THE CONSCIENCE, l. c. and UNHAPPY MARRIAGE AND DIVORCE. International Universities Press, New York, 1946; DIVORCE WON'T HELP. Harper, N. Y. 1948.

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TREATMENT OF ENLARGED PROSTATE GLANDS BY VASECTOMY AND THE EFFECT ON THE STIMULATION OF THE GONADS

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In medical history, the originator of vasectomy for the purpose of rejuvenating sexual activities in the male was Steinach, a Viennese surgeon. He reported such cases in his papers after ligating the vas deferens, resecting a part of the vas, endeavoring to rejuvenate his patients by causing an atrophy of the spermatogenic organ by interstitial tissue proliferation of the testicle. Steinach believed that this would develop and increase the output of the gonadal hormones, thereby causing "rejuvenation" or stimulation of the sexual activities of the male. The work and theories of Steinach created quite a revolution in the era of the early twentieth century, but Steinach and his many students failed to go deeper into the physiological pathology resulting from these procedures.

Many other authors followed Steinach's theories and pioneered in this subject. One outstanding pioneer claimed rejuvenation of sexual activities in the male. His name was Voronoff. He performed operations by transplanting into man part, or whole, of the testes of an anthrapoid ape. Many successful cases were reported by these pioneers, but only a very few followers of these teachings followed up the after-effects of the operation on the seminal vesicles, and the changes occurring in the prostate glands.

The results of such work, in the view of rejuvenating the sex activities of the patient, were varied; even at the present time such work is still in the experimental stage. The Russians are attempting to rejuvenate the human body by using a serum extract obtained from the spleen, which they claim increases the longevity of the natural life span, in addition to keeping the human being in the process of constant youth. This also is in the early experimental stage.

There are many controversies as to the function after the operative procedure of vasectomy or transplantation of various testicular tissues, which challenges the original statements, work and theories of Steinach.

It is human nature that after middle age the average man becomes conscious of his sexual declination, or perhaps the sexual impotency to which he may have become subject. The purpose of this paper is not to revolutionize sexual rejuvenation or to agree with the Steinach theories or the longevity of life theories, but to furnish the medical profession with the facts and progress in the mode of life and the behavior (the psycho-physiological changes as well as the anatomical changes) following a vasectomy in the human. The purpose of this paper also is to show the improvement of an enlarged prostate gland following the vasectomy and the stimulation of the endocrines by vasectomy will become secondary to the improvement of the prostate gland.

Of the patients whom I examined, after a vasectomy was done by various surgeons, about fifty per cent claimed that there were no changes in their sexual activities; about fifty per cent claimed definite improvement following the operation.

This paper will cover the report of twenty-eight patients, between the ages of thirty and seventy-five years, who have undergone vasectomies. For a period of fourteen years they were very closely and carefully observed as to general health, sexual life, social and business activities. Frequent physical examinations were made. X-rays of the sella turcica were made regularly, the latter for the belief that some changes may be anticipated in the pituitary gland. Such changes in that gland may cause changes in the personality or in the sexual activities of the patient. In some cases, I believe the mental changes or changes in the social life were influenced by psychological reasons after the vasectomy, but it was found that psychology played only a minor part in patients where somatic changes occurred.

In the younger patients, the operation was performed only after it was thoroughly explained to both them and their wives that there was certain sterility ensuing after such a minor operation. The younger patients invariably had not less than four children, and some of the patients' wives could not continue to have more offspring. Thirteen patients in this history also were complaining of symptoms common to enlarged prostate glands. Examination of the prostate glands showed that neither one was cancerous or precancerous, but mostly the hypertrophied type; a few were slightly adenomatous and causing pressure symptoms of the bladder. These patients wanted relief from their urinary disturbances, as well as improvement from their impotency.

Testosterone propionate was used by injection and also was prescribed for oral use in conjunction with the injections. It was found that the patients who had the vasectomy operations obtained faster amelioration of their symptoms than the ones who obtained the testosterone

alone. Testosterone was given to ten patients for a period of not less than six months before resorting to vasectomy.

One sixty-five year old patient, especially, who could not have intercourse, and who did not have an erection for a period of six years, had an enlarged prostate gland causing pressure symptoms on the bladder. He underwent a vasectomy, with satisfactory recovery, and experienced an erection for the first time in six years. The prostate gland was the hard adenomatous type, slightly irregular in shape before the operation, and suspicious of being precancerous. Three months after the vasectomy it became smaller and one grape-like projection disappeared and the texture became normal; all the urinary symptoms disappeared during the eight months following the operation; there was no further suspicion of cancer.

The average patient gradually became more stimulated immediately following the operation. In the thirteen cases where the prostate glands were larger than normal and frequent urinary disturbances were present, causing the patients to get up several times during the night, these symptoms gradually disappeared and the general condition of the patient improved to such an extent that in two cases a normal family relationship (which was at the breaking point because of impotency on the part of the husband) was re-established.

Naturally, this type of operation should not be performed on young male individuals or on those whose families are small, because it might cause national moral chaos. Also, publicity favorable to this operation would contribute to juvenile delinquency directly or indirectly. The operation should not be performed where there is only one child in the family and the parents are young, for it is a well-known fact that "once sterile by vasectomy, always sterile." The surgical procedure of re-establishing the continuity of the cut vas is a major operation, or may become such; such operations have a very low statistical success.

The operation of vasectomy should be recommended in cases where the mother's health is impaired and would become more critical by another birth, or where there is a pelvic pathology or deformity present, or where there is history of inability to carry the child, or where eugenic problems are involved, or prior to prostatectomy.

In middle aged or elderly patients where the prostate gland is enlarged and where production of future progeny is not desired for medical or social reasons, vasectomy is recommended. Where a congenital or infectious disease is present, or neuropsychiatric or psychiatric disturbances are present, or where inheritance or tendency toward blood dyscrasias in families (for instance hemophiliacs, etc.) are present, or where there is fear of future pregnancy or pregnancy is not wanted for the above reasons, vasectomy is ideal and at the same time helps in maintaining normal man and wife relationships.

It is a proven fact and should be born in mind after following up these patients' histories, that the prostate gland gradually becomes smaller after vasectomy. Possibly this occurs because of the discontinuation of the vas, which causes the seminal vesicles to become enlarged and the seminal fluid for ejaculation to become increased. This mechano-physio phenomenon develops by the mechanical disturbance of the spermatogenic apparatus. Perhaps this is the reason the prostate regains and maintains its normalcy postoperatively. Examination of the spermatozoon by testicular puncture shows disappearance anywhere from six months to two years. Naturally, the changes in these testicular interstitial tissues are very apparent after vasectomy. The seminal fluid increases because of the enlargement of the seminal vesicles which supervenes the operation. It also has been proven that among the younger patients sexual intercourse frequently increases and there is a general increase in the patient's well-being. This is noted about two years following the operation and, after that, the sexual function returns to the same stage in frequency as it was before the operation, and where impotency was not a preoperative factor. This was not noted in elderly patients after the age of forty-five years, where the sexual frequency retained its periodical status.

In the elderly patients above fifty years, the general conditions of well-being was aroused to such an extent that the patient's general appearance was changed and the elasticity of the skin improved. About five patients above fifty years looked ten years younger in age. In three patients there was no change in the texture of the skin or in general appearance, with the exception of reduction of size of the prostate glands (which improved the urinary symptoms, permitting normal uninterrupted rest at night). It was noted among these elderly patients who received testosterone injections that the seminal vesicles became somewhat larger than in the patients who had the vasectomy alone. Four elderly patients (from fifty-eight to sixty-two years of age), who were the depressive, business-executive type, underwent favorable changes following the vasectomy.

The operation is a minor one and can be done in the office of the surgeon with local anesthesia

My method of operation is very simple and is as follows: The entire scrotum is shaved and the skin is sterilized. Then the cord on the left side is palpated first, feeling the vas. It is imperative that ample time be taken for palpating because anomalies may be be present in which some patients have more than one vas present on that side. (I have seen two cases where on one side there was a small branch which had a double vas.) After palpating the vas deferens, hold it between the thumb and index finger and inject a two per cent nova-

caine around the area. Grasp the entire cord with an Allis forcep, through the skin, holding it in situ. Make a small incision, not exceeding one-half inch, at the stationary grasped area. Bring the vas into view and inject a few drops of novacaine directly into the lumen and into the surrounding cord tissue. Use silk ligation at the proximal and distal ends, which should be suspended until cut. Be sure that the vas ends are crushed by the hemostat. Side by side anastamosis shall be done. Only one or two clips for approximation of the skin completes the operation. The patient may return to work twenty-four hours following the operation. For from seven to ten days a suspensory supporter should be worn. Postoperative pain is very minimal. A sedative is seldom needed. In two cases there was some swelling of the testes postoperatively, possibly because of more than usual traction on the vas during the operation.

Every patient in the younger and middle aged group, without exception, experienced immediate erections and well-being, mentally as well as physically, two days after the operation; however, it took up to two years to establish permanency of this condition. Subsequent follow-up of these cases revealed that most of the patients had established new marital status with more harmony and more hope of continued happiness. The psychology also has to be considered in the contentment of these patients, inasmuch as the fear of pregnancy which was in the minds of some of the wives affected the family harmony.

Each patient received a complete physical examination before the operation. I went into the details of their social life as well as the handicaps of their life. X-rays were taken of each patient's skull before the operation; this was followed up in six months and yearly thereafter by another X-ray of the sella turcica. In twelve patients, changes in the size of the sella occurred; some measured as much as 2 mm. smaller on the film than preoperatively. This change was noted about a year after the operation, and the size then remained stationary for from four to ten years.

In patients with positive cancerous prostate glands, vasectomy was not recommended and was not tried. When metastasis has already occurred, castration is the choice, and may be supplemented by estrogens.

Comments

In benign hypertrophy of the prostate glands in the aged, vasectomy should be tried, by all means. It is believed, from the facts proven here, that since the testicles undergo interstitial changes after the operation, stimulation of the ductless glands (especially of the pituitary) may occur. Vasectomy plus testosterone has definite value in the male climacterics, as was proven in five of the ten cases treated. I have been in close contact with each one of these patients since their operations, and they have become close friends because of the interest shown to them through the long observation periods and as a result of the favorable physical and physiological changes caused by this form of treatment.

Therefore, constant close supervision and observation could be accomplished. But since, in my twenty years practice of medicine and surgery, I did not do more than thirty-six vasectomy operations, and only twenty-eight of which I could observe very closely, carefully, and continuously, up to the present date, I appeal to the many pioneers in this field for further observations of patients on whom they performed vasectomies, to follow up the endocrine studies on their patients also.

It has been proven that prostate glands become considerably smaller after vasectomy. Where the male gonadal hormone output and potency diminishes to a noticeable degree, this operation with testosterone treatment will assist in the return of the lost sex vigor in many cases. This operation-injection treatment stimulates the spermatogenic apparatus and indirectly effects a new endocrine equillibrium; it also relieves the discomfort caused by the enlarged prostate gland. Naturally, it is expected that psychological factors should play some part in the postoperative well-being of the patient, but it has proven of a secondary value in recovery where the operation was performed for the purpose of treatment of enlarged prostate glands.

The patient invariably feels like a better man, mentally satisfied from the threat of using contraceptives, and reestablished in a satisfactory marital hygiene and domestic life. The patient gradually appears younger, and experiences an euphoric state of life. This was observed in the majority of older patients, since symptoms of urinary disturbances lessened and because the prostate glands became smaller, naturally they have been permitted to enjoy more nocturnal rest and, therefore, improvement is noted.

In many patients, where sexual life had been dormant, it became reactivated. The word "rejuvenated" would be misused here, for it is actually "reactivation" of the sexual glands which is taking place. The operation of vasectomy with testosterone treatment in the male climacterics should be looked upon favorably. Testosterone treatment, consisting in each case of a bi-weekly injection of 50 mg., followed up by vasectomy, is the operation-injection combination method. There is every evidence that this form of treatment is worthwhile in re-establishing the normal dormant youth which exists in every individual over the age of forty years. Testosterone and vasectomy in combination were used by me for the past three years only and it was found that more vigor was established in the "reactivating" of the sexual life by this combination method than by vasectomy alone, especially in the male climacterics.

Patients who were operated on ten to fourteen years ago, and whose sexual activities became increased, were placed on testosterone about

three years ago. This helped to maintain some of the periodical erection which declined somewhat eight to ten years after the vasectomy operation. There were no recurrences of prostatic symptoms in those where originally the prostate glands were enlarged and became normal as a result of the operation and remained stationary in size for many years and to the present time.

Summary

This is a report of twenty-eight patients who underwent vasectomy operations and who were closely observed for a period of fourteen years.

Thirteen patients were suffering urinary disturbances caused by enlarged prostate glands. All urinary symptoms disappeared about six months following the operation.

The prostate glands (which were all benign) became smaller and normal in size and remained so for several years after the vasectomy operation.

Vasectomy "reactivates" the sexual functions in at least 75% of the postoperative cases, and the patient regains the potency which was previously dormant. Declination can be prevented by testosterone injection.

Testosterone and vasectomy are of great value in the male climacterics, when used in combination.

Vasectomy should be performed on carefully selected cases where such an operation is indicated and strictly upon the discretion of the surgeon.

The surgeon should keep in close contact with the patient in order to supplement the declining activities of the sex glands by testosterone injections.

Vasectomy should not be used indiscriminately because it might cause moral chaos, or contribute to juvenile delinquency either directly or indirectly.

Vasectomy helps to re-establish satisfactory marital relationships and happier outlooks in many cases by removing psychological and somatic, as well as social, difficulties.

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BLOOD CHOLINESTERASE LEVEL AND DURATION OF LIFE IN THE LEUKEMIAS

With Notes on Elevation of Blood Cholinesterase in Certain "Leukemoid" Conditions

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During 1946, a series of whole blood cholinesterase (ChE_b) determinations revealed some significant findings in the instances of certain blood dyscrasias (1). In the main the findings corroborated those of Sabine (2) who had suggested that the erythrocyte cholinesterase content (and thus indirectly ChE_b) connoted the activity of the bone marrow. In our series macrocytic or hyperchromic anemias and those in whom subsequent autopsy or biopsy revealed erythrophthisis (uremia, Felty's syndrome, pemphigus, advanced malignancy) exhibited low ChE_b as compared to our figures on normal subjects. The greatest depression of ChE_b was observed in the acute leucoses.

An increased ChE_b value was reported in polycythemia vera; this has subsequently been confirmed in other instances. High ChE_b values have also been encountered in hyperthyroidism, a single case of acromegaly and idiopathic microcytic anemia and in 2 of 3 cases of amyotrophic lateral sclerosis. In our original report the values in the benign systemic lymphoses (the so-called "infectious" mononucleoses and lymphocytoses and giant follicular lymphadenopathy) were reported as being normal. It appears now on analysis of the data on a statistical basis, that these values are somewhat elevated.

During the past year, the depression of ChE_b in all additional cases of the myelophthisic dyscrasias coming to my attention, has been confirmed. Such cases consist of those with aplastic anemia, radiation sickness, allergic and thrombopenic purpura in addition to several cases of acute leukemia. It is my belief that this drop in ChE_b (which may be called by the useful if etymologically poor term, estrapenia) is a determinant, rather than just a concomitant of the down-hill course of these patients. Such determinance is hard to prove. The coincidence of estrapenia with the acuity and severity of the erythrophthisic dyscrasias is, however, striking. There is indeed a rough parallelism between the degree or rate of development of estrapenia and the survival time of the patient. That there is not a direct proportionality between these parameters may be due only to certain artefacts and diversities in the progression of the malignant dyscrasias. For instance, the estrapenia and lethal trend of pernicious anemia are both interrupted by an adequate course of liver therapy.

Blood transfusion occasionally operates in a similar manner in pemphigus or acute leukemia.

Because these diversities are in themselves instructive, they will be elaborated upon in the description of some of the leucosis cases which formed the basis of our original report. One year after the collection of the original data, an attempt was made to trace the subsequent courses of the patients. Unfortunately the closing of the military facility at which the work was initiated with subsequent transfer of certain patients, made it possible to secure data, and that meager, on only 11 of the fourteen patients in the leucosis series. The original data of July, 1946 along with what the life span subsequently turned out to be as of a year later on those that could be traced, is rendered in Table I. The case summaries which follow were gleaned from the files of other agencies to which those patients had been sent for disposition; this at the close of the case and therefore the summary designation (as to type and course) does not always coincide with our tabular designation.

For convenience, brevity and the avoidance of redundancy, the rather unusual reporting procedure of interspersing the discussion with the individual case summaries will be followed.

Case 1 (Ho). This patient was admitted to the hospital on June 20, 1946 having been taken so seriously ill in Italy a week before that he was flown to the United States. He died on July 1, 1946 being 19 years old at the time. Autopsy showed death to be due to hemorrhagic extravasions; just before death the bleeding time became indefinitely prolonged and the platelet count dropped from its previous 60,000 level to 28,000. (Two days before the patient had had a blood transfusion to which he reacted unfavorably). At the same time the erythrocyte count dropped in this period from 3.65 to 3.25 millions and the leucocytes rose from 69,500 to 146,500, the "blast" forms increasing from 20 to 66% while ChE_b fell from 2.84 to 2.60. The agonal blood contained approximately 2.5 mg. % of heparin (or antithrombin) and the pericardial and pleural exudates contained 3 mg. % of heparin (the highest we have encountered autochthonously in a body fluid). Both blood and pericardial fluids clotted spontaneously after the addition of modified human globin. On the basis of this phenomenon, the use of modified human globin as an antiheparinic in the treatment of the hemorrhagic phase of the estrapenic blood dyscrasias has been advocated (3).

The relationship of platelet level to the development of hemorrhagic diathesis in acute leukemia or thrombopenic purpura is not entirely clear. The hemorrhagic level for blood platelets is given at between eighty and one hundred thousand per cubic millimeter; in this case no such diathesis existed until the platelets had dropped definitely farther. Heparinemia, itself, does not condition hemorrhage; it must coexist along with cholinergic capillary permeability. In the case of the acute leucoses it is not improbable that histamine operates along with acetylcholine to produce the cholinergic state. If this is the case, the reputed role of platelets in the neutralization of histamine might operate to curtail the hemorrhagic diathesis.

The induction of a hemorrhagic phase by blood transfusion has been repeatedly noticed by us in other malignant dyscrasias. These reactions to blood transfusion appear not to be due to agglutinin incompatibility but to the tendency of the estrapenic patient to react atopically to a variety of materials. Adverse reaction to otherwise life-saving blood transfusion is one of the most serious problems posed in the treatment of leukemia; this must await the fractionaction of the effective material in the blood or plasma for its final solution.

Case 2 (Wo). A 27 year old army nurse was admitted July 13, 1946 and discharged Sept. 16, 1946. When last seen (May 1947) she had been receiving x-ray therapy on an outpatient basis and there had been weight loss and anorexia. There are enlarged cervical and retroperitoneal nodes and spleen. Blood count on April 25, 1947 showed erythrocytes, 2.6 millions and leucocytes, 164,000. The diagnosis was chronic myelogenous leukemia—our original impression (as given in Table I) had been "subacute" leukemia. There are three points worthy of comment in this case. First, the blood picture did not change materially within the year in spite of radiation therapy. X-ray is a two-edged sword in the instance of leukemia—it may, by inhibiting leukopoiesis, permit marrow space for erythropoiesis and cholinesterase synthesis. Or it may directly inhibit the latter and thus synergize the pathodynamics of the leucotic process, itself. As we have insisted and as Bloom has just shown experimentally (4), the erythroblast is far more sensitive to the deleterious effects of radiation than is the leucoblast. Radio-resistance that develops during the treatment of leukemia is a corollary of this fact. When administered in that phase (as when attempted in the acute leucoses) x-ray selectively kills off the erythroblasts and with them, the patient. The pathodynamics of leukemia are far more involved with the failure of erythroblastosis than they are with the apparent prodigality of leukoblastosis.

Secondly, this patient showed a marked clinical improvement following an initial course of blood transfusions—this improvement coincided with a rise in both uncorrected and corrected ChE_b levels of almost 30%. The corrected value, in fact, came close to the lower limits of normal. The value of transfusion in the *chronic* leucoses is often overlooked; it is frequently advisable to institute a course of transfusions during x-ray, urethane or arsenic or nitrogen mustard therapy to counteract the estrapenic effect of these potent depressants which (with the possible exception of arsenic) depress erythroblasts more than they do leukoblasts.

Thirdly, the independence of blood cholinesterase levels from erythrocyte, leukocyte or hemoglobin levels (1) is illustrated by this case. The salubrious effect of blood transfusion certainly seems not to reside in the cellular or hemoglobin fractions. It has been our experience that even after 1000 c.c. of whole blood is given, any change in the degree of anemia is undetectable but the patient's color and

general condition may, nevertheless, be strikingly improved.

Case 3 (Hi). This patient was admitted to a military hospital on June 2, 1946 and died during the last week in July. The presenting symptoms were pallor, asthenia and hematuria which continued throughout the course. In spite of a leukemic blood picture this case is hard to designate; though the bone marrow showed infiltration with large undifferentiated round cells, autopsy revealed a retroperiteneal leukosarcoma with invasion of both kidneys. It is noteworthy that the erythrocyte cholinesterase (which just happened to have been performed in this patient) is within the normal range. This finding indicates that the erythroid marrow was not depressed and our thesis has been all along that such depression is the *sine qua non* of acute leukemia. The ChE_b is depressed to a degree not commensurate with the low hematocrit as may occur in any type of malignancy; this depression is due to the low plasma ChE. There is some question as to the legitimacy of classifying this case among the leucoses.

Moore (5) did not observe any beneficial effect from the administration of human plasma cholinesterase in a case of leucosarcoma.

Case 4 (Ja). A twenty nine year old soldier in whom a terminal sample of blood was secured on July 25th. He died three days later with hemorrhagic diathesis.

Case 5 (Ru). A twenty seven year old male admitted to the hospital on July 23 and who died July 26, 1946. An autopsy was not performed. Clinically, death was ascribed to acute lymphatic leukemia (our own designation of the blood smears was that of a monoblastic type) with bilateral bronchopneumonia as a contributory cause. When I saw this patient, one day before death, he was in severe medical shock. There was no pyrexial or hemorrhagic phases.

Case 6 (He). A thirty year old male was admitted to the hospital on July 19 and died August 26, 1947. Autopsy revealed myelogenous leukemia, bronchiectasis, left upper lobe, splenomegaly, hepatomegaly, renal myeloid metaplasia (compare with leukosarcomatous infiltration of kidneys in Case 3) and hemorrhagic diathesis. Terminal blood count was; erythrocytes, 1 million, hemoglobin 3.2 grams % or 19.2 decimillimolar (for a color index of unity), leucocytes, 120,000 of which 70% were myeloblasts. I saw the patient on July 23 and the ChE_b determination was of that date. Pallor was extreme in keeping with the lowest blood cholinesterase value we have encountered to date. This emphasizes our impression that if there is any single overt manifestation of degree of estrapenia, it is degree of pallor. Still, life was prolonged for a month and then took place by a mechanism which is now forestallable; hemorrhagic diathesis.

Actually, from a morphologic standpoint, the high leucocyte count with an absolutely high number of mature forms, the hepatomegaly and splenomegaly along with the myeloid metaplasia (which, if not confused with infiltration, connotes exo-medullary myelopoiesis) places this case in the chronic rather than in the acute category. However, distinction between the two transitional types is as arbitrary one on morphologic as it is on clinical grounds. There is probably an entirely different mechanism of engenderment of the acute and the chronic case of leukemia but death in the chronic form is frequently through the same modality which operates in the acute type (6). In 40% of cases, hemorrhagic diathesis is responsible; hyperpyrexia accounts for an additional forty percent while infection, shock or cholinergic cardiac failure account for the remainder. The majority of cases die with some manifestation of cholinergic intoxication whose varied expression appears to be a matter of individual constitutional reactivity.

Case 7 (Ar). A 23 year old male veteran was admitted on June 14, and died on Aug. 10, 1946. No autopsy was secured. On August 6, erythrocytes were 3.4 millions, hemoglobin, 11.6 gram % or 70 decimillimolar, the color index thus being slightly greater than unity. The total leucocyte count was 350,000. A trace of heparin was found in the blood on July 23, 1946 (the same day as ChE_b was determined) by the thrombin titration method. At this time, 87% of the leucocytes were found to be myeloblasts.

In this case as in the one immediately preceding, the color index was unity or greater. This is found to be the case in many scores of cases of estrapenic blood dyscrasias; it indicates the hyperchromic or macrocytic nature of the anemia in these conditions. It may easily be, as Davis (8) points out, that cholinergic substances put a "brake" on the activity of the erythroid marrow and cause the type of maturation arrest exemplified by the blood picture in pernicious anemia. The implications of this concept must be greeted with mixed feelings for if it is the true case, it indicates that our approach to the rational therapy of acute leukemia has always been in a direction diametrically opposed to the correct one. The concept that the anemia of the acute leucoses is a *primary* one in the same sense that addisonian anemia or that of sprue is primary, should be decidedly more fruitful. The elevated basal metabolic rate of leukemia is not, as is so often stated, due to the catabolic component of an "overactive" marrow; the basal rate is equally increased in untreated pernicious anemia where the marrow is definitely depressed. The elevated basal metabolic rate is an expression of the specific dynamic action of the extant cholinergics. The blood pictures of aleukemic leukemia and pernicious anemia are strikingly similar; actually the two conditions are sometimes only clinically distinguishable on the basis of the former's refractoriness to liver therapy. But this refractoriness to liver therapy is really one of degree. We may have been misled by reports of what I regard as inadequate trials of liver in stationary chronic leukemics (9). There is a place for properly applied liver therapy in the treatment of the acute leucoses. This, as in the case of prophylactic penicillin therapy, should be by the *oral* route (6) since with repeated blood transfusions and diagnostic punctures of all kinds, the acute leukemic is not infrequently needled to death. It must be emphasized that, particularly in children, there is a large psychosomatic

component in the estrapenic blood dyscrasias and the terror of anticipation of the inevitable periodic needle fortifies this component.

The hyperchromic character of the anemia of the acute leucoses indicates that there is no iron deficiency, in fact extensive parenchymatous and cutaneous hemochromatosis has been a contributory morbid feature in some of our cases. It has been customary to administer iron in acute leukemias but this might as well be foregone. It does no good insofar as the development of the anemia is concerned, can upset the intestinal tract and thus make difficult an adequate caloric intake or the more rational indicated oral medicaments.

Case 8 (Sc). This 69 year old male was admitted to a Veterans' Hospital because of a large spontaneous subscapular hematoma in April, 1946. A chronic myeloid leukemia was discovered and he was transferred for radiation therapy. The response was excellent and he was called back for routine readmission on May 9, 1947 though his health had been good in the interim. On the latter date erythrocytes were 2.53 millions, hemoglobin, 8.4 grams % or 50 decimillimolar; leucocytes, 265,000 of which 8% were myeloblasts, 18% myelocytes, 26% stabs and 24% segmented granulocytes. The lymphoid cells comprise 3% of the total. He received an additional course of radiation therapy and when last seen (July 29, 1947) was in fair health.

This patient, in spite of a moderate anemia had an essentially normal ChE_b, when the latter was evaluated by correction for the large volume of white cells present. Washed pus cells have been reported free from esterase activity (11) and this we have confirmed for both leukemic and normal leucocytes.

Case 9 (Pr). This was a 19 year old sailor who gave a history of rapid evolution of pallor and asthenia following typhoid vaccine administration (the fourth such case in my own experience). He was admitted to the closest federal facility during the second week of June, 1946 and died during the first week in August, 1946. A trace of heparin was detected in the blood on July 17 (the date of the ChE_b determination) but whether the patient died with a hemorrhagic diathesis is not known since there is no record of autopsy. The designation of the type of leukemia is based on the sternal marrow aspirates which were made available to me.

Case 10 (Co). The response of this patient to massive plasma infusion in July 1946 was the basis of a previous report (7). Following a remission coincident to the infusion of a ChE containing plasma with a stabilization of ChE_b at a higher level, there was a second relapse during October. Two thousand cc. of reconstituted lyophilized plasma was given. On October 10, ChE_b had been 4.24 and on Oct. 17, when nodules began to appear in the cervical lymphatic chain, it was still 4.18; close to a normal value. However he became more prostrated and on Nov. 4 these glands appeared to be enlarging rapidly and ChE_b was 3.62. The only available plasma was some which assayed 0.5 Alles and Hawes (12) units/ cc. and a thousand cc. was administered on Nov. 4 and again on Nov. 5. There was no apparent clinical effect. On Nov. 6, ChE_b was 3.88 and by Nov. 8 it had again dropped to 3.61. He was transferred to another installation for radiotherapy to the cervical glands but died Nov. 19 from bronchopneumonia which was found at autopsy in addition to extensive myeloid infiltration. The case was evidently one of relapsing chronic rather than "subacute" myeloid leukemia as we had previously designated it.

The importance of using either fresh or at least unpreserved plasma for ChE_b replenishment has previously been stressed (7). The available lyophil material contains mercury which vitiates ChE activity. It is hoped that the readvent of national donor programs will solve the problem of the availability of suitable plasma in this regard.

Case 11 (Th). This 57 year old army nurse with a history of active pulmonary tuberculosis and chronic lymphatic leukemia over many years, was admitted to the hospital on July 10, 1946. ChE_b determination on July 24 was 6.19. In our original report we had referred to this value as "normal" and the case as one of "stationary chronic lymphatic leukemia". This was the single exception to the estrapenia that otherwise ran through the entire "leukemia" series (1).

Subsequent extension of a series of determinations on healthy subjects prove the value recorded in this case to be well above the average, particularly when ChE_b is corrected for the increased volume of leucocytes. We now designate such an increased value as "estremia".

Following a single x-ray treatment ChE_b in this case dropped to within normal range (5.60). That this drop which has been found to take place in other subjects is due specifically to the radiation, which depresses erythropoiesis, has been indicated elsewhere (13). Following continued fractional irradiation over a period of a year, the patient was alive but still hospitalized and from the hematologic report which is the only criterion available to me, not as well off as she was previously. On June 10, 1947 erythrocytes were 2.3 millions, hemoglobin, 8.8 grams % or 53 decimillimolar and the leucocytes were 9,000 of which 95% were mature lymphocytes.

It is probable that the granulopenia and hyperchromic anemia at the present stage of this case, are the result of the extensive radiation therapy given rather than that of the "leukemia". In fact we are now dubious of the legitimacy of the inclusion of cases of this nature in the same category as the malignant blood dyscrasias. Several have been seen in which lymphocytosis of marked degree was apparently a protracted estremic atopic response to tuberculosis. Similar atopic responses, with elevated ChE_b have been seen in brucellosis and amebiasis and it is becoming more evident that atopic responses to a variety of organisms or allergens may give a "leukemoid" blood picture. The term "leukemia" and "leukemoid" are only descriptive (and inadequately descriptive, at that) so that we have adopted the term, benign systemic lymphosis, for those conditions in which dedifferentiation of the leucocyte spectrum is associated with some atopic phenomena

(such as rise in heterophile antibody or reagin titer) but not with a malignant trend (infectious mononucleosis and lymphocytosis). The average ChE_b in such cases is higher than the normal average (Table II) just as the average ChE_b in chronic allergies is elevated (14). It is in the differentiation of the benign from the malignant lymphoses that the present utility of ChE_b determination would seem to reside.

Aside from this potential clinical significance, the physiologic significance of ChE_b remains to be determined. There have been emphatic denials that ChE_b levels are a determinant of the patient's cholinergic balance but those who consider them merely the reflection of the patient's clinical status have presented only *serum* ChE values in argument. Serum ChE makes up only one-third or one-fourth of ChE_b in the human and portend very little (see Table III). Our position that ChE_b is a determinant is still unsupported except by indirect clinical evidence; when ChE is artificially raised, there is decided improvement while the rise in ChE_b is extant. The values shown in Table IV are illustrative. A 65 year old male who had a history of "virus" pneumonia treated for *six weeks* at home by the continued administration of sulfonamides, was finally taken to the hospital and there found to have the blood and marrow findings of acute aleukemic myeloblastosis. He was given two blood transfusions and sent home. His course continued febrile and downhill. After being home for three weeks he was again hospitalized with prostration, vomiting and intractable diarrhea. An infusion of 500 c. c. of a 4% solution of IV-6 human plasma globulin fraction (containing 500 units ChE/gram) was started intravenously. While the infusion was running, the pallor subsided and the patient expressed a desire for food which was eaten with relish. The next day there was no diarrhea and the patient felt well enough to be up and around. There was no change in the leucocyte picture. Transfusions of A, Rh_o positive blood were then given in an attempt to maintain the improvement but on this regime he relapsed and on the sixth day of hospitalization it was again necessary to give IV-6 fraction, 50 grams on this occasion and again with dramatic improvement. He continued to show the aleukemic picture and a moderate hyperheparinemia; the latter undoubtedly being the cause of an external thrombotic hemorrhoid which had developed (blood heparin concentrations of between 1 and 1.5 milligrams percent are definitely thromboplastic and incipient hyperheparinemia may account for the frequent thrombophlebitis and phlebothrombosis seen in the leucoses) and which he complained bitterly. His clinical condition was so good that I insisted on operative interference, against the advice of the proctologic consultant with the result that in spite of antibiotic therapy, an overwhelming infection developed and was apparently responsible for the fatal termination. A subsequent dose of IV-6 was ineffective in raising the ChE_b and seemed to precipitate shock. At this time a titer of I:4 Rh_o blocking antibody was found in this fraction so that we have not used in it Rh positive patients.

Mendel and Hawkins (15) have abolished certain cholinergic phenomena in rats by the intravenous injection of horse serum ChE in rats and Schachter has used the same material in dogs (16). We have raised the ChE_b level of rabbits and guinea pigs by the intravenous administration of porcine parotid or cobra venom esterase but a suitable enzyme for application to human therapeutics is still lacking. Only when the latter is available, will the answer to the question of the determinant role of ChE_b be answered.

Summary and Conclusions

1. An analysis of the blood cholinesterase levels in 11 cases of leukemia indicates a rough relationship between the degree of estrapenia (depression of the blood cholinesterase) and the imminence of death, whatever the mechanism of the latter.

2. The mode of death in leukemia is through one of the three responses to irreversible cholinergic intoxication. Forty percent of patients die from hemorrhagic diathesis and purpura, an equal percentage from hyperpyrexia with or without infection and the remainder, from hypotensive shock. The progressive estrapenia which is believed to condition the lethal factors in leukemia as well as the individual factors themselves should be amenable to rational therapeutic approach.

3. Adverse reaction to typhoid vaccine administration is a cholinergic episode whose relationship to the precipitation of acute leukemia warrants exploration.

4. "Leukemoid" blood pictures associated with a condition of relatively benign course frequently exhibit an elevated blood cholinesterase (estremia). Such hematologic findings may indicate a humorally compensated atopic episode and is of both diagnostic and prognostic importance.

Bibliography

1. BARNARD, R. D. SPRINZ, H., FITCH, H. M., LEHMAN, R. A., and WALKER, R. A.: Whole blood cholinesterase determinations in some hematologic dyscrasiasis; Low cholinesterase values in the leucoses. *Science*, 104, 449, 1946.
2. SABINE, J. C.: Choline esterase of blood cells and plasma in blood dyscrasias with special reference to pernicious anemia, *J. Clin. Invest.*, 19, 833, 1940.
3. BARNARD, R. D.: The mechanism of the cutaneous manifestations of acute leukemia. *Urol. & Cutan. Rev.*, 51, 46, 1947.
4. BLOOM, M. A., and BLOOM, W.: Radiosensitivity of erythroblasts. *J. Lab. & Clin. Med.*, 32, 654, 1947.
5. MOORE, C. V.: Personal communication.
6. BARNARD, R. D.: The nature of acute leukemia and the interrelationship of the malignant blood dyscrasias. *N. Y. State Med. J.*, 47, 2703, 1947.
7. BARNARD, R. D.: Massive plasma transfusion and the pathodynamics of acute leukemia. *Med. Rec.*, 160, 610, 1947.
8. DAVIS, J. E.: Hyperchromic anemia produced by choline or acetylcholine and the induced remission of both by folic acid or liver injection. The probable mechanism of action of liver or folic acid in the treatment of anemia. *Am. J. Physiol.*, 147, 404, 1946.
9. CASTLE, W. B., MEYER, O., & CHEW, W. B.: Negative results of treatment of chronic myelogenous leukemia as a deficiency disease. *Proc. Soc. Exp. Biol. & Med.*, 32, 660, 1935.
10. BARNARD, R. D.: Cholinergic episodes and states in the human. Deductions from the occurrence of systemic cholinergic reactions following typhoid vaccine administration, *Ohio State M. J.*, 44, 801, 1948.

11. GINSBERG, R., KOHN, R., and NECHELES, H.: Studies on the blood esterase. *Am. J. Digest. Dis. & Nutrition,* 4, 154, 1937.
12. ALLES, G. A. and HAWES, R. C.: Cholinesterase in the blood of man. *J. Biol. Chem.,* 133, 375, 1940.
13. BARNARD, R. D.: Reduction of blood cholinesterase following x-ray therapy and its bearing on the possible mechanism of radiation sickness. *Med. Rec.,* 162, 350, 1948.
14. WEBER, H.: Etiology of bronchial asthma and its treatment. *Wien Klin. Wochnschr.,* 55, 687, 1942.
15. MENDEL, B., & HAWKINS, R. M.: Abolition of cholinergic impulses by administration of horse serum cholinsterase to the rat. *J. Neurophysiol.,* 6, 431, 1943.
16. SCHACHTER, R. J.: The effect of cholinesterase on surgical shock in the dog. *Am. J. Physiol.,* 143, 552, 1943.

TABLE I

Blood Cholinesterase Values in the Leucoses

Case	Designation	% Volume % RBC	% Volume % WBC	ChE_b	ChE_b corrected	ChE plasma	ChE erythrocyte*	Duration of Life**
1. (Ho)	ac. myelo.	31.0	3.0	2.60	2.67	1.26	5.49	2 days
2. (Wo)	subac. myelo.	21.5	10.7	2.99	3.29			1 year***
3. (Hi)	ac. "stem"	19.0	3.0	2.94	3.01	1.38	9.65	2 weeks
4. (Ja)	ac. myelo.	21.0	3.6	2.26	2.33			3 days
5. (Ru)	ac. mono.	13.9	10.8	2.29	2.60			1 day
6. (He)	ac. myelo.	24.4	1.9	1.28	1.31	.79	3.08	4 weeks
7. (Ar)	subac. myelo.	46.1	2.5	3.23	3.31			3 weeks
8. (Sc)	chr. myelo.	38.6	12.9	3.82	4.23			1 year
9. (Pr)	ac. lympho.	25.2	3.1	2.26	2.33			1 week
10. (Co)	subac. myelo.	29.0	0.2	3.60	3.60			3 months
11. (Th)	chr. lympho.	57.5	2.1	6.19	6.41			1 year

* Calculated value.
** After recorded ChE_b determination.
*** This patient's blood ChE_b had risen to 3.96 (corrected ChE_b=4.11) three weeks later following a series of seven blood transfusions.

TABLE II

Blood Cholinesterase Values in Benign Lymphoses

Patient	Designation	Duration*	ChE_b	Remarks
Br.	Mononucleosis	1 year	5.14	Heterophile, antibody titer, 1-1024 one year previously
Tr.	Mononucleosis	4 weeks	5.88	Followed upper respiratory infection
Bu.	Mononucleosis	10 weeks	5.96	Followed upper respiratory infection
Pa.	Lymphosis	8 weeks ?	5.45	Giant Follicular Lymphadenopathy
Ti.	Lymphocytosis	4 weeks	5.11	Undetermined Origin, Lymphocytes=30,000/cmm
De.	Mononucleosis	6 months	5.96	Followed atypical pneumonia
Ca.	Lymphocytosis	3 months	6.06	Generalized lymphadenopathy
Ir.	Lymphocytosis	1 year	6.01	Amputation of leg for active bone tuberculosis. Lymphocytes=40,000/cmm.
Ma.	Mononucleosis	6 months	5.86	Positive Brucellergin Test and Brucella Agglutination
Bre.	Mononucleosis	2 months	4.49	No change after 2 weeks on pyrabenzamine
Fi.	Mononucleosis	2 months	4.77	No change after 3 million units of penicillin
Li.	Lymphosis	6 months	5.05	Proximal Colitis and splenomegaly
Ta.	Lymphocytosis	3 weeks	5.65	Amebic Colitis responsive to Emetine. Lymphocytes=120,000/cmm.

* Prior to determination of ChE_b.

TABLE III

Effect of Daily Blood Transfusions on Whole Blood Cholinesterase Distribution

Date	Hemato-crit	ChE_s	ChE_b	ChE_e (calculated)	Remarks
29 July	.39	2.59	4.11	6.89	Before transfusion
30 July	.40	1.69			24 hrs. after first transfusion
31 July	.40	1.71	4.30	8.18	After second transfusion
1 Aug.	.42	1.29	4.54	9.01	After third transfusion

The patient was a 59 year old male with aleukemic myelosis ("agnogenic leukemia") who, two years previously had undergone splenectomy on the basis of a diagnosis of Banti's syndrome. He has received transfusions of 1000 c.c. each on the average of twice monthly since. This has enabled him to follow his usual occupation as travelling representative and he, himself gauges the need for transfusion on the appearance of pallor and asthenia. These are immediately relieved by transfusion of 1000 c.c. but not entirely by transfusions of 500 c.c. Repeated sternal marrow biopsies have shown erythroid hypoplasia and megaloblastosis and active myelopoiesis. There is extensive hemosiderosis but the latter may not necessarily be due to repeated transfusion since hemosiderosis is seen in untransfused patients with this syndrome.

The rise in ChE_b produced by transfusion above what appears to be a certain "critical" value for well-being is surmisable from many observations and may be operative in this case. The reciprocal

relationship between ChE_s and ChE_e is well illustrated.

TABLE IV

Date	ChE_b units	Hemato-crit	Remarks
31 Dec.	2.49	.29	
6 Jan.	2.71	.31	10,000 units ChE administered
7 Jan.	3.88	.33	500 cc. whole blood administered
8 Jan.	4.11		
9 Jan.			500 cc. whole blood administered
10 Jan.	4.05	.37	
12 Jan.	3.21	.30	25,000 units ChE administered
13 Jan.	4.83	.41	
14 Jan.		.38	
15 Jan.	3.37	.30	500 cc. whole blood administered
16 Jan.	3.41	.35	12,500 units ChE administered
17 Jan.	3.57	.25	
18 Jan.	2.10		post mortem marrow value

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*Cruskin, B.: Am. J. Surg. 49:49 July 1940

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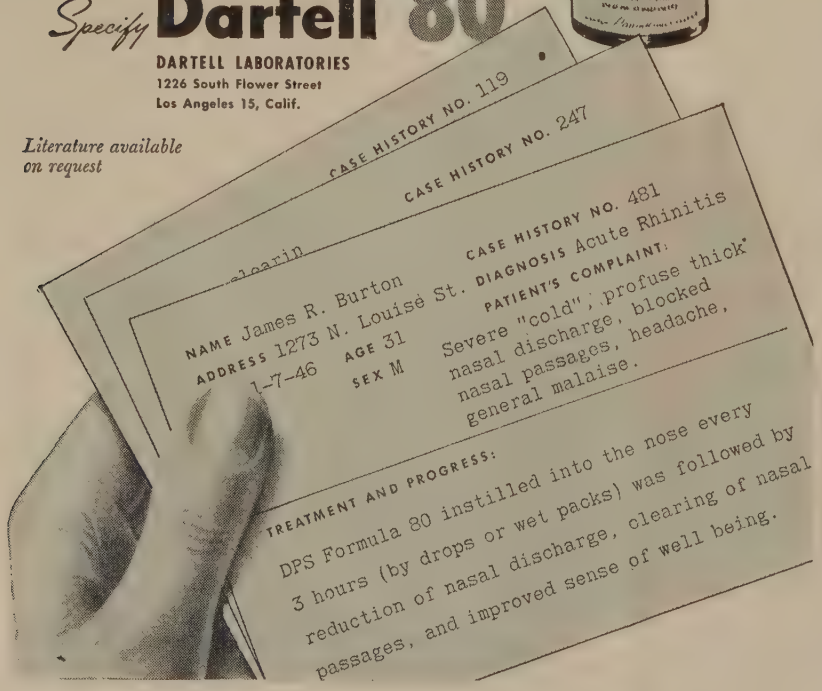
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CASE HISTORY NO. 247
CASE HISTORY NO. 481
NAME James R. Burton
ADDRESS 1273 N. Louise St.
1-7-46
AGE 31
SEX M
DIAGNOSIS Acute Rhinitis
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Editorial

The General Practitioner

At the "interim meeting" of the A.M.A. at Cleveland, Ohio, Jan. 6, 1948, several papers were read at the "Session on General Practice." Dr. Wingate M. Johnson of Winston Salem, N. C., is one of three whose "papers" are published in the J.A.M.A. for July 10, 1948. He has been and still is a militant leader in "the rights of the G.P." and has a trenchant, incisive, literary style which drives home his points. "Upholding the Prestige of the General Practitioner" is the specific title of his article, and he has taken the trouble to hunt up the meaning of "prestige" in the dictionary. Of three definitions of the word, Dr. Johnson takes "ascendancy derived from general admiration or esteem; commanding position in men's minds," as the one best suited to the occasion.

He thinks that specialism is allowed to dangle too much as bait before the eyes of the public, and calls it an "illusion" which should be scotched. The situation was not uncommon in ancient times,—Plato, 2,400 years ago, found that too many were trying to cure the body while forgetting or putting aside "the soul." He may have been, therefore, the advance agent of psychosomatic medicine! At least he put a finger upon the need for viewing the *whole man,* and not merely a *part* of his body. As for the attitude of our profession as a unit, it was noted in 1866 by the Committee on Medical Ethics that specialization could be permitted if the specialist were first well-grounded in general practice. That is a desideratum which is just as valuable today as it ever was. The G. P. is here to stay. Even Osler who was a specialist in the sense of being an "internist," was amused by the nonsense he heard concerning "the passing of the family physician."

Dr. Johnson states that certain factors favor specialization. First, the higher fees attract. Medical schools are said to favor the specialist. Some hospitals are not open to the G. P. He thinks that those who hope to *socialize* medicine, and he mentions Isadore Falk in this connection, are seeking to drive a wedge into our ranks by setting groups against other groups,—one assumes according to the "divide and conquer" formula. While some patients need the highly trained skill of a specialist, "eighty-five per cent can be cared for by the general practitioner." We are now witnessing he says, "The renaissance of the general practitioner." More hospitals are to be built in rural areas under the Hill-Burton Act to which it is hoped all reputable doctors will have access. In this connection, the Council on Medical Education avows that it was never intended that appointments to staffs should be limited to Board-certified physicians only. Qualifications for such appointments are to be judged by the professional staff of a given hospital, and not on "certificates" of this or that group or Society. While it is true that "every reputable physician *should* have a hospital staff appointment," what are we going to do about the less reputable? They will continue in practice. One cannot ordinarily take their license to practice away, save for proof of felony. We may deny any liking for them, and refuse to consult with or aid them in any way, but they are competitors, and may bring down upon *us* all the censure of a non-thinking, non-understanding public. Nobody seems ever to have taken this "problem" into consideration. How can the less reputable be converted and made to walk uprightly in the sight of all other men?

Dr. Johnson recommends five "things to do" to maintain the prestige of the G. P. . . . 1. He must put aside his inferiority complex. He is just as much a doctor as anybody else who holds an M. D., and can take care of 85% of all illnesses. 2. He must keep up to date by reading, attending medical meetings, and consulting with colleagues. 3. He must systematize his work, not be driven, and give enough time to every new patient as well as to the old ones. 4. He is the family adviser and friend. If he cannot treat certain conditions, he should send them to the man who can. 5. He must keep in harmony with the specialist, learn from him, and, maybe teach him something too!

The second paper is from the pen of Dr. Fred Sternagel of West Desmoines, Ia., and is entitled, "The General Practitioner and Community Leadership." He emphasizes the "position" of the doctor in his community as a tower of strength, not only in matters medical, but in the esprit de corps of his environment. The doctor, is, of course, first of all a medical man who prevents as well as cures diseases. He is a teacher of how to live, or should be, in respect to health education, health legislation, and

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the relationship and responsibility of the individual to his family and to his neighbors. The secondary field concerns business, the school, the church, and the club, in all of which he can and should be outstanding.

From Ann Arbor, Michigan, Dr. Charles F. Wilkinson writes on "How to Create More of Him (the G. P.) for the Future Needs of the Country." The University of Michigan Medical School has a "plan" which was to have gotten under way on July 1, 1948. It may have done so. There are "two-year general residency programs . . . to develop a general practitioner, with a possible third optional year." Affiliation with two hospitals provides two interns and one general resident at each hospital at all times. It is so planned that eight interns during one year will have six months training at the University Hospital and six months at one of the two affiliated hospitals. The resident in medicine and the resident in surgery will change every six months. Instruction will comprise: 1. A clinical pathologic conference once a month for nine months of the year. 2. A "roentgen conference" weekly for nine months to stress diagnosis chiefly. 3. A clinical conference for diagnosis and therapeusis, once a week. 4. A specialist heads each conference. 5. Teaching by ward rounds.

It is thought that in future there will be a migration of city doctors to the country, and that the rural physician will benefit from this liaison. That is a "consummation devoutly to be wished." Dr. Wilkinson feels that any medical school can develop a general practice training course which will show the medical student how desirable it is to become a good all-around doctor, and to set up an office in a community other than a great city where he can be useful, respected, and a leader in all that pertains to civic welfare. If this be a dream, it is one that should be realized ultimately for the good of all concerned.

The first installment of the Current Medical Index appears on page 31 of this issue. This index is not complete. However in future issues, all medical journals will be included in the list.

Medicolegal Notes

Aggravation of Tuberculosis by Inhaling Fumes of Halowax Held Compensable

An employee of an electrical manufacturing company allegedly contracted pulmonary fibrosis from inhaling dangerous chlorine fumes while operating a wire taping machine. In a personal injury action against his employer he alleged that the employer failed to provide a reasonably safe place to work and that because of lack of proper appliances to carry off the fumes, or warning plaintiff of the danger, he came in contact with halowax, a compound containing chlorine, which gave off poisonous fumes, causing tuberculosis. It was claimed and admitted that halowax is a halogenated hydro-carbon, and that it is toxic, a poison. The defendant employer had judgment in the Federal District Court for Western Pennsylvania, Watkins v. National Electric Products Corporation, 69 F. Supp. 596. That court said: "An employee by accepting the provisions of the compensation act surrenders his right to bring an action in tort to recover for any disability. His remedy is exclusively under the Workmen's Compensation Act of June 2, 1915 supplemented by the Occupational Disease Act of July 2, 1937."

Each of the four physicians called by the plaintiff expressed the opinion that the plaintiff by his exposure to the fumes of halowax had made active an existing tuberculosis which theretofore had been in quiescent condition.

None of them asserted that the tuberculosis condition had resulted directly from the exposure to the fumes, but to such exposure was attributed the injury which resulted to the plaintiff. The defendant called a number of witnesses, several of whom qualified as experts, who alleged that halowax had no effect in creating plaintiff's condition; but in passing judgment the court, as required, accepted the testimony of the plaintiff's witnesses.

Plaugher v. American Viscose Corporation, the court held, decisively brings under the Occupational Disease Act cases in which exposure to halogenated hydrocarbon has been a contributing or accelerating cause, aggravating or accelerating a pre-existing disease, and plainly controlled the decision of the court in its interpretation of the Pennsylvania statute. In Plaugher v. American Viscose Corporation, 151 Pa. Superior, 401, 30 A 2d 376 the testimony showed that the decedent died of rheumatic heart disease and mitral stenosis and that death was accelerated by carbon disulphide poisoning. It was held there (page 409) that the provision excluding contributory or accelerating causes as the basis for compensation for disability or death due to silicosis, anthraco-silicosis, or asbestosis, does not apply to carbon disulphide poisoning and other diseases catalogued in section two, paragraphs (a) to (j) inclusive of the Pennsylvania act.

The theory of one medical witness for the plaintiff, that, because the ordinary effect of poisoning by a halogenated hydrocarbon is to attack the skin and the liver of one exposed to it, injury to the lungs did not constitute poisoning by the fumes as contemplated by the Act of 1939, was held at variance with the Plaugher case. The court quoted as a satisfactory definition of poison, "any substance which, where introduced into the system either directly or by absorption, produces violent, morbid or fatal changes, or which destroys living tissue with which it comes in contact." Here the court said, the fumes were introduced into the system and destroyed living tissue, and were the aggravating cause of the injury claimed by the plaintiff.

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52 Grants Made In 1948 For New Medical Research

The Sterling-Winthrop Research Institute, together with Winthrop-Sterns Inc., awarded a total of 52 grants-in-aid during 1948. The combined grants amounted to a total of $159,644.

Twenty-four of these grants went to universities, medical schools and colleges, and the balance to clinics, hospitals, institutes, research foundations and individuals.

General grants were made for the purpose of supporting investigations and training in the following subjects: therapeutics, pharmacology, neurosurgery, internal medicine, organic chemistry, and related fields.

Specific grants were made for the purpose of supporting research in antisepsis, spinal and topical anesthesia, general metabolism, infectious diseases, asthma and many others.

In-Service Workshops For Graduate Nurses Instituted

A series of regional workshops for in-service training of graduate nurses was instituted by the New York State Department of Mental Hygiene.

Nearly 120 nurses have registered for the opening sessions at Kings Park State Hospital and Rome State School, the former serving the hospitals of the Long Island area and the latter the central upper New York area. The current series of workshops is designed to give 1200 graduate nurses in the department an opportunity to devote a period of intensive study to specific nursing problems.

Book Reviews

Nutrition

Symposia on Nutrition. Papers prepared for the Symposium on Nutritional Anemia. Edited by ARTHUR LEJWA, Scientific Director of the Robert Gould Research Foundation, Inc. Robert Gould Research Foundation, Inc., 1947. 194 pages.

These are the papers delivered before the October 1947 meeting of the Foundation. Each paper offers something in the field of the title. The reader finds something of interest in each contribution. Ptero-l-glutamic acid (PGA) influence on Celiac disease opens vistas for the physician. The part each quotient of the vitamin B complex plays in erythropoiesis promises much to an understanding of the complex and its part in all nutrition as well as nutritional anemia. The question of an anemia with true scurvy is reviewed. A long way from James Lind and his lime juice.

Another item of folk lore brought into modern science is the influence of iron and of copper on anemia. The isotopes will help solve many problems in this specialist zone of investigation.

Dermatology

One Hundred Dermatologic Formulas. Prescriptions for the treatment of Common skin diseases through topical application of up to date pharmaceuticals and General practitioners guide of diseases of the skin by HERMAN GOODMAN, M. D. (with additional 20 prescriptions) published by Froben Press, 1776 Broadway, New York, N. Y. Price $2.00.

The title tells the story of this small book. It is a very ingenious arrangement, very practical, and the prescriptions the physician requires for the patient very accessible. The book is arranged on the basis of nine sections: acne; cream and other bases; burns, dermatitis, eczema, poison ivy, etc.; infection, impetigo; pediculosis, scabies; seborrhea, alopecia, psoriasis; tinea; intertrigo, itching, hives; and callus, wart.

The outline for laboratory work facilitates teaching or self instruction.

Diagnosis

Methods of Diagnosis. By LOGAN CLENDENING, M.D., F.A.C.P., late professor of Clinical Medicine and History of Medicine, University of Kansas School of Medicine; EDWARD H. HASHINGER, M.D., F.A.C.P., professor of Clinical Medicine, University of Kansas School of Medicine. 143 illustrations. St. Louis, Mo.: The C. V. Mosby Co., 1947. Pp. xiii + 868. Price $12.50.

The late Dr. Clendening was for many years an interpreter of medicine as a science and art to the lay reader. He knew how to simplify difficult subjects so the reader would be interested and instructed. Here he sees the physician at the bedside, studying his problem. He must *know* physical diagnosis in every detail. After getting the data together he must both analyze and synthesize it. This work discusses the diagnostic possibilities of a given case starting with signs, symptoms, and all laboratory items available, and by a process of elimination helps to make a decision as to the most likely disease process present. Since an accurate diagnosis measures at least half the distance toward cure, this will always be the "strong arm of medicine." The authors in this book teach us how to lean on that arm.

Pharmacology

A Manual of Pharmacology and Its Applications to Therapeutics and Toxicology. By TORALD SOLLMANN, M.D., professor emeritus of pharmacology and materia medica, School of Medicine, Western Reserve University, Cleveland. Seventh edition. Philadelphia and London: W. B. Saunders Co. 1948. Pp. 1132. Price $11.50.

New editions of this great work have been appearing on an average from two to four years since 1917. The latest was published in 1942 in spite of the War. The aim is and has always been to set up an "outline," at least, of the current knowledge and concepts of the action of an enormous number of drugs which experience has shown to be of practical, daily use. The chief advance has been made in finding agents which are baneful to infective organisms but do not damage the cells of the host. In stating this, we recognize that the antibiotics are not the only ones which have been benefited by research; for example, the sulfas, the antimalarials, the antimonials, insect and rodent killers, and weed destroyers,—all of these directly or indirectly related to the supreme efforts of winning the great war. A number of the older drugs have declined in importance as a result; some of the newer drugs have not as yet been duly certified. It takes years of experience, and the combined reports from many investigators to evaluate finally the ultimate value of any drug. Disadvantages are practically always present with the advantages, and it requires excellent judgment to know how to use any one of these agents to the *best* advantage .

This book has a reputation for thoroughness and accuracy as well as for completeness. All of these virtues are maintained in this seventh edition, which is still a model of excellent bookmaking from the technical side. Great credit is due Saunders for maintaining this high standard.

Office Gynecology

Practical Office Gynecology. By KARL JOHN KARNAKY, M.D., assistant professor of clinical gynecology, Baylor University College of Medicine; gynecologist to Jefferson Davis Hospital, Houston, Texas. Springfield, Ill.: Charles C. Thomas, 1947. Pp. xxiii + 261. Price $7.50.

The work upon which this book is based began

in 1932 with studies on Trichomonas vaginalis, Monilia albicans, and Leukorrhea. It was soon seen that many gynecological procedures could be carried out in the doctor's office instead of insisting upon hospitalization,—this is especially true of "medical" rather than surgical treatment. The laboratory is the efficient aid in deciding certain issues, especially as to management of a given case. It is an indispensable aid to clinical observations; for example, the fact that uterine bleeding may be controlled by changing the blood level of estrogen with diethylsilbestrol. This was determined after some six years work in the Menstrual Disorder Clinic in the Jefferson Davis Hospital. Faulty ovulation or normal ovulation were investigated in a study of sterility in the presence of vaginal acidity.

Illustrations in black and white, and a few in color aid in understanding actual conditions as seen by the clinician. Vaginal pH and vaginal disorders are freely discussed in Chapter Eight. The cause and cure of vaginismus is of especial importance, since it causes frigidity in otherwise normal women, and so often leads to marital unhappiness and to divorce.

This is a very useful guide in daily practice of medicine.

Pain In Childbirth

Control of Pain in Childbirth. By CLIFFORD B. LULL, M.D., F.A.C.S., Director, Division of Obstetrics and Gynecology, Philadelphia Lying-In Unit, Pennsylvania Hospital and ROBERT A. HINGSON, M.D., F.I.C.S., F.A.C.A., F.I.C.A., Associate Professor of Obstetrics; Anesthesiologist, Department of Obstetrics, Johns Hopkins University and Hospital; Surgeon, United States Public Health Service. With an introduction by NORRIS W. VAUX, M.D., Consulting Obstetrician and Gynecologist, Philadelphia Lying-In Unit of Pennsylvania Hospital; Professor Emeritus of Obstetrics, Jefferson Medical College. Third Edition, Revised and Enlarged. 522 Pages. Illustrated. J. B. Lippincott Company, Philadelphia, London, Montreal. 1948. Price: $12.

Anesthesiology has made vast strides in making child bearing easier for the mother. However, infant mortality is still too high. "The combined stillbirth and neonatal loss . . . in the United States is from four to six per cent." In some regions this loss runs as high as ten per cent! But in Brazil mortality from stillbirth and in the newborn is set down at 24.5 per cent!! Transplacental narcosis is a probable cause, but this can be reduced by oxygenation of the fetus. Technics are now available which allow sufficient oxygenation for both mother and baby. Loss of infant life can be reduced by: 1. Protecting the expectant mother from toxemia, cardiac disease, anemia, respiratory diseases etc. In other words effective and complete watchover during gestation; 2. Avoiding depressing drugs, or, if these must be used, making sure of sufficient oxygenation and relaxation of the birth canal during delivery; 3. Applying methods of resuscitation to the infant, maintaining body heat, and removing all obstruction to the respiratory tract immediately after birth (this item should come first). We have now caudal anesthesia of various kinds, also spinal nerve block which are said to be highly efficient and safe in careful hands. The book shows illustrations depicting these newer technics. Due acknowledgment is made to those physicians who have helped so much in reporting their experiences as accoucheurs. Thus one obtains a cross-section of clinical observations which is invaluable to any author of books on this important subject of obstetric care. Much credit is due the publishers in maintaining a high standard of excellence in paper, print, and general format.

Bacterial Diseases

The Acute Bacterial Diseases. Their Diagnosis and Treatment. By HARRY F. DOWLING, M.D., F.A.C.P., clinical professor of medicine, George Washington University; chief, George Washington Medical Division, Gallinger Municipal Hospital. With the collaboration of LEWIS K. SWEET, M.D., Chief Medical Officer in Pediatrics and Infectious Diseases, Gallinger Municipal Hospital and HAROLD L. HIRSH, M.D., assistant professor of medicine, Georgetown University; director of the Bacteriology and Immunology Laboratory, Georgetown University Hospital. Illustrated. Philadelphia, Pa.: W. B. Saunders Co., 1948. Pp. 465. Price $6.50.

The data for this book were gathered from some seven thousand patients in Gallinger Hospital and in private practice. Several contributors aided in the collection and in the analysis therefrom. It is notable, says the author, how medical thought has changed and is still changing because of contributions to therapy and, of course, to diagnosis during the past few years. The sulfas, penicillin and streptomycin, not only, but new laboratory techniques have helped to bring about this change. Formerly, the physician named a disease after what he saw or heard,—for example, the rash in scarlet fever, and the sounds in lobar pneumonia, but now the tendency is to think of the *cause* or *causes* and to know which is the most effective agent against a given germ-agent. We speak now of gram-positive or gram-negative organisms, and we know which antibiotic will be most effective against the type as determined and isolated in the laboratory. We also know how and when a given organism builds up resistance against the antibiotic, and we must plan accordingly. The combined old and new thought should make for better diagnosis and better treatment, and it does. This book has the very great virtue of illustrating by brief case histories the effectiveness of each agent; for example, that of a woman, aged 29 with scarlet fever as reported on page 153 who was cured by penicillin and antitoxin, in what seems to have been a matter of hours instead of weeks! Masking of symptoms by these new therapeutic agents is not forgotten, and the clinician is reminded that surgery in mastoiditis, for instance, may still be needed after apparently successful "cure." This is an excellent, practical and altogether trustworthy book, done in the best bedside manner.

New Products

Rectal Suppositories

Sharp & Dohme, Inc., Philadelphia pharmaceutical manufacturers, have announced the national release of "Tresanoids" Antiotic Rectal Suppositories, useful in the treatment of various proctologic conditions. Each suppository contains: Tyrothricin, 1 mg.; "Propadrine" phenyl-propanolamine hydrochloride, 20 mg.; benzocaine, 15 mg.; bismuth subgallate, 150 mg.; zinc oxide, 150 mg. The presence of tyrothricin in "Tresanoids" serves to prevent and combat infection due to pyogenic organisms, streptococci and staphylococci, the most frequent etiologic factors concerned with inflammation of the rectum. "Tresanoids" are supplied in boxes of 12.

Flex-Straw Drinking Tubes

Seldom in hospital annals has a simple invention at such trifling cost provided the benefits to both patient and staff as has the new Flex-Straw. This disposable, sanitary drinking tube is paper based, but special treatment in high temperature-resistant micro-crystalline wax makes it adaptable for use in hot as well as in cold liquids. It is so designed that an ingenious patented crimped section near the top of the tube allows the straw to flex and bend to any drinking angle. The Flex-Straw, is a product of the Flex-Straw Corp., 4300 Euclid Ave., Cleveland, Ohio.

New Drug for Sinus Infections

Tersavin, a new drug for sinus infections which combines the bactericidal action of penicillin with the vasoconstrictor effect of ephedrine, was announced by Hoffman-LaRoche, Inc. Tersavin is a new compound—the crystalline l-ephedrine salt of penicillin G. It is available in stable tablets which dissolve readily and form a buffered, isotonic, well-tolerated solution for local use. Clinical studies indicate that Tersavin is of impressive value in the treatment of acute and chronic sinus infections.

Blood Group Specific Substances

Sharp and Dohme, Inc., Philadelphia drug manufacturers, announced the release of Blood Group Specific Substances A and B for the conditioning of Group 0 blood to be used in transfusions. These substances condition Group 0 blood by reducing the isoagglutinin concentration in the donor blood to a safe level so that such blood can be administered to patients belonging to any of the four major blood groups without danger of an incompatible transfusion reaction. Blood Group Specific Substances A and B are supplied in a rubber-stoppered vial with aluminum enclosure. Each vial contains one transfusion unit (10 cc.) of the solution.

Pneophore Introduced

Treatment of respiratory ailments in which the lungs or parts of the lungs are inactive, now is possible with the use of a device known as Pneophore, a valve arrangement that administers oxygen with intermittent positive pressure. With the Pneophore, it is possible to introduce penicillin, streptomycin and other drugs into a large region of the lungs are, whether active or inactive. The Pneophore, manufactured by the Mine Safety Appliances Co., Pittsburgh, differs from a resuscitator in that it administers oxygen under intermittent positive pressure only.

Introducing Bacitracin

The recent announcement by C. S. C. Pharmaceuticals, of the availability of Bacitracin represents the culmination of more than three years of research by Commercial Solvents Corporation on this new antibiotic. Bacitracin exerts a profound antibacterial action against many gram-positive pathogens including the common streptococci and staphylococci. It is also destructive for certain gram-negative organisms, the spirochete of syphilis, and the Endamoeba histolytica. An added feature is its effectiveness against many strains of pathogens resistant to penicillin.

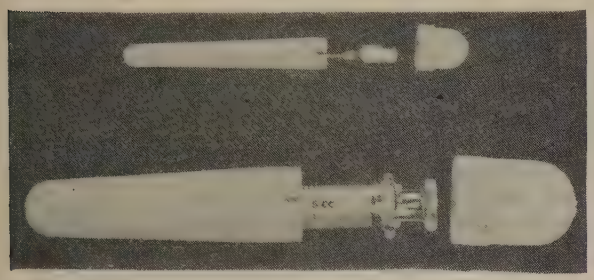
Rest-Well Bed Board

If you get up in the morning stiff as a poker it's your innerspring mattress that's at fault. You really ought to sleep on a Rest-Well Bed Board, manufactured by the Rest-Well Bed Board Co., New York City. The boards are made of fiberwood and come in three sizes, the original single bed size, a twin size which is 30″ x 60″, and a three-quarter size which is 36″ x 60″.

New Hearing Aid

The board of Acousticon International has achieved a new hearing aid, the Constellation, proven by laboratory and clinical tests to have reached a maximum of power three times that of any similar instrument, and is thus capable of restoring hearing to people previously considered beyond help.

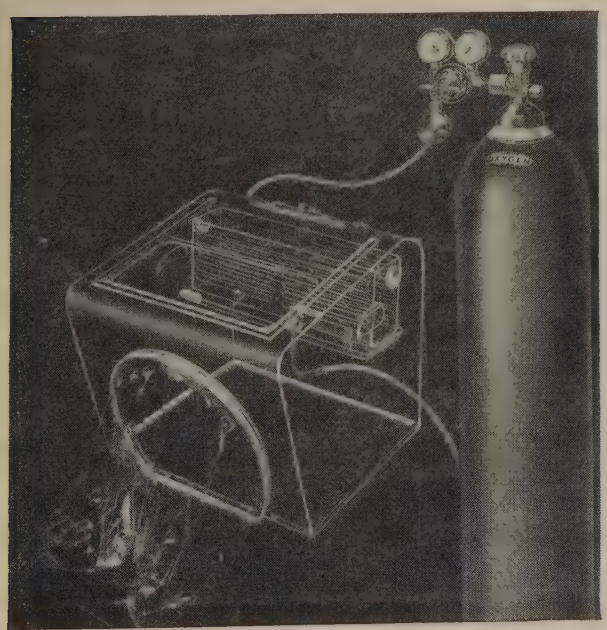
The Constellation is only slightly larger than a cigarette case and since the attachable radio, the Super Radion, is about the size of a lipstick, both may be carried comfortable in vest pocket or handbag. The super Radion contains two tiny vacuum tubes operating on the same "A" and "B" batteries which supply power to the hearing aid transmitter.



New Temperature Control

Accurate thermostatic temperature control within 1 degree is a new feature of the Oxygen Equipment Manufacturing Corporation's Mechanaire.

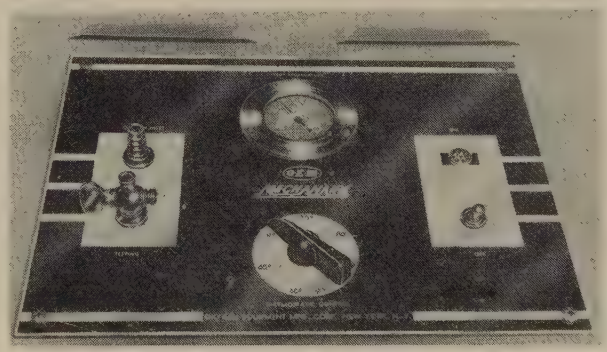
With this new temperature control, there is guaranteed assurance for users of the Mechanaire Iceless Oxygen Tent that the temperature indicated on the panel board will be the same as the temperature in the tent.



New Use for Nylon in Medical Profession

A brand new use for nylon has been developed by the Mendo Co., surgical instrument manufacturers of Pasadena, Calif. They have molded nylon into a pair of fountain-pen shaped cases. The larger case holds the popular 5 c.c. hypodermic syringe, the smaller case holds any hypodermic needle up to 2" in length.

Unlike ordinary plastics, nylon withstands high temperatures, therefore, the syringe and needles can be sterilized, or even autoclaved, right in the cases—by merely loosening the cap, thus exposing a slot which admits the steam.



New Oxygen Tent

The new Junior Thermal-Ox Tent designed to fill a long awaited need for children one to four years of age has recently been introduced by the Oxygen Equipment Manufacturing Corporation, New York.

This new oxygen tent completes a group of products offering oxygen therapy for every age. The OEM Junior Thermal-Ox Tent is constructed of heavy gauge crystal clear lucite in one unit. A specially designed meter injector provides pre-set oxygen concentration without CO_2 build up. Another feature is the temperature control, in which temperature is accurately maintained by a removable ice chamber with sliding door. The Junior Thermal-Ox Tent measures 12" x 12" x 16½".

Personals

Election of *Dr. Clyde W. Geiter,* medical director of George A. Breon & Company, Kansas City, Mo., as vice president was announced recently by J. Gill Jordan, president. The company manufactures and distributes pharmaceutical preparations to physicians. Besides his pharmaceutical activities, Dr. Geiter has devoted considerable time to the field of ophthalmology, the practice of industrial and private medicine, and research on which he has reported in scientific papers.

The appointment of *Donald W. Baldra* to the position of office manager of the Schering West Coast branch was recently announced by Francis C. Brown, president of Schering Corporation of Bloomfield and Union, N. J. Well acquainted with sales management and operations, Baldra is well equipped to conduct his present position with Schering in service to the professions in the Coastal area.

Alfred L. Golden, public relations director of United Medical Service, has been appointed as vice president by the board of directors. Golden is also public relations director of Associated Hospital Service—New York's Blue Cross Plan. He has also served as public relations consultant to life insurance and health organizations on the west coast.

H. G. Terwilliger, president of the Ernst Bischoff Company, recently announced the appointment of *Joseph J. Borghi, Jr.* as plant manager. Borghi has been with pharmaceutical manufacturing company for eight years, serving the majority of that time in his present capacity at the Subsidiary plant of the Bischoff Company in Memphis, Tenn.

Dr. Donald Sheehan, formerly director of the Commonwealth Fund, has been appointed chairman of the Scientific Committee, New York University-Bellevue Medical Center. As chairman of the Scientific Committee, Dr. Sheehan will direct the overall program of teaching and research to be carried out at the Center.

Dr. Paul R. Cannon, internationally known pathologist of the University of Chicago, was awarded the William Wood Gerhard Gold Medal of the Pathological Society of Philadelphia for outstanding work in medical research. The gold medal is the highest tribute of the oldest pathological society in America. On October 13, Dr. Cannon was presented the Ward Burdick Award-Medal of the American Society of Clinical Pathologists.

Schering Corporation of Bloomfield and Union, N. J., recently announced the appointment of *Francis J. Gleason* of New York to the Sales Analysis Unit of the Schering Domestic Sales and Promotion Division.

J. Smith Lanier has been requested to act as honorary director of the Shute Foundation.

Dr. Milton J. E. Senn, was appointed as Director of the new Yale Child Study Center at Yale University. He is a member of the American Pediatrics Society, the American Psychiatric Association, the American Academy of Pediatrics, and the New York Academy of Medicine.

C. Robert Gruver, has resigned as Public Relations Director of the Associated Hospital Service, Philadelphia's Blue Cross Plan.

The annual Gorgas Award for outstanding work in preventive medicine was made to *Brigadier General Edgar Erskine Hume* at the annual dinner of the Association of Military Surgeons of the United States in November. General Hume, as Chief of Allied Military Government of Italy (Fifth Army) during the war, stopped the typhus epidemic in Naples in the first large scale use of DDT in history. The Gorgas Medal and $500 cash award, given annually by Wyeth, Inc., through the association, were presented by Everett V. Scott, Wyeth executive.

Civilian Medical Consultants Participate In Far East Medical Conference

In line with the Surgeon General's policy of making the latest in research information available to Army Medical officers throughout the world, a medical conference was held October 20 at the Eighth Army's 361st Medical Station Hospital and 406th Medical General Laboratory in Tokyo.

Participating were several Army medical doctors, representatives from the allied sciences section of the Medical Specialist Corps and two consultants from the United States who attended under auspices of The Surgeon General.

Medical Reference Material Available

A vast source of medical reference material—formerly limited to Yale Medical students and faculty—is now available to local and state physicians through the recent creation of an organization known as the Associates of the Yale Medical Library.

The new group has as its objectives, "The maintenance and augmentation of the medical collections, both current and historical; and the extension of the usefulness of these collections, not only to Yale, but to the community at large."

Current Medical Index

Below is an index of articles appearing in prominent medical journals, classified by subject matter. MEDICAL RECORD will publish a complete index each issue, including articles published in other journals during the preceding month. This listing should be an invaluable aid in providing the doctor with sources for further reading on subjects in which he is interested. No longer will he have to leaf through over a hundred publications to find one article which interests him . . . the MEDICAL RECORD index will serve as his quick directory.

ALLERGY

Ragweed Extermination Plan for Philadelphia . . . *Pennsylvania Medical Journal* . . . October, 1948

Evaluation of Hydryllin in Symptomatic Treatment of Allergy . . . *N. Y. State Journal of Medicine* . . . November 1, 1948

ARTHRITIS

Rheumatoid Arthritis After Injury to a Single Joint . . . *Medical Journal of Australia* . . . September, 1948

Rheumatoid Arthritis . . . *Pennsylvania Medical Journal* . . . October, 1948

Hot Climate for Arthritis . . . *Modern Medicine* . . . October 1, 1948

"Rheumatoid Disease" with Joint and Pulmonary Manifestations . . . *British Medical Journal* . . . November 6, 1948

Rehabilitation in Rheumatoid Arthritis . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948

BACTERIOLOGY

The Cultural Differentiation of Paracolon Bacilli . . . *Bulletin of the Johns Hopkins Hospital* . . . November, 1948

Studies in the Laboratory Diagnosis of Brucellosis . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948

BRONCHIA

Bronchiectasis . . . *Northwest Medicine* . . . October, 1948

Bronchography in Early Diagnosis of Bronchiectasis and Bronchogenic Carcinoma . . . *Northwest Medicine* . . . October, 1948

Bronchial Carcinoma . . . *British Medical Journal* . . . October 23, 1948

Bronchogenic Carcinoma . . . *Rocky Mountain Medical Journal* . . . November, 1948

CANCER

The Cancer Situation in Pennsylvania . . . *Pennsylvania Medical Journal* . . . October, 1948

Cancer Conference . . . *Rhode Island Medical Journal* . . . October, 1948

Carcinoma of the Esophagus . . . *British Journal of Surgery* . . . July, 1948

Bronchial Carcinoma . . . *British Medical Journal* . . . October 23, 1948

Treatment of Cancer of Skin . . . *Journal of A.M.A.* . . . October 23, 1948

Cytologic Method of Cancer Detection . . . *Military Surgeon* . . . November, 1948

Chemotherapy of Cancer . . . *British Medical Journal* . . . November 6, 1948

Role of the General Practitioner in Cancer Detection . . . *Rocky Mountain Medical Journal* . . . November, 1948

The Diagnosis and General Management of Carcinoma of the Esophagus . . . *Rocky Mountain Medical Journal* . . . November, 1948

Mediastinal Tumors . . . *Rocky Mountain Medical Journal* . . . November, 1948

The Clinical Application of Some Aspects of the Gastric Cancer Problem . . . *Rocky Mountain Medical Journal* . . . November, 1948

Some Aspects of the Gastric Cancer Problem in Relation to Diagnosis, Treatment and Prognosis . . . *Rocky Mountain Medical Journal* . . . November, 1948

Morphology of Early Cancer . . . *Rocky Mountain Medical Journal* . . . November, 1948

The Important Features in the Diagnosis and Treatment of Tumors of the Kidney, Pelvis and Ureter . . . *Rocky Mountain Medical Journal* . . . November, 1948

Brain Tumors: Diagnosis and Treatment . . . *Rocky Mountain Medical Journal* . . . November, 1948

The Diagnosis of Bone Sarcoma . . . *Rocky Mountain Medical Journal* . . . November, 1948

Present Status of Our Knowledge Regarding Malignant Disease of the Prostate Gland and Tumors of the Urinary Bladder . . . *Rocky Mountain Medical Journal* . . . November, 1948

Tumors of the Spinal Cord: Symptoms Differential Diagnosis and Treatment . . . *Rocky Mountain Medical Journal* . . . November, 1948

Treatment of Bone Sarcoma . . . *Rocky Mountain Medical Journal* . . . November, 1948

Bronchogenic Carcinoma . . . *Rocky Mountain Medical Journal* . . . November, 1948

Cancer of the Rectum . . . *Rocky Mountain Medical Journal* . . . November, 1948

Cancer of the Breast . . . *California Medicine* . . . November, 1948

Cancer Control Methods . . . *Journal of A.M.A.* . . . November 20, 1948

Cancer of the Left Side of the Colon . . . *Journal of the Iowa State Medical Society* . . . November, 1948

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Vaginal Cervical Smear in the Diagnosis of Uterine Cancer . . . *Virginia Medical Monthly* . . . November. 1948

CARDIOLOGY

Recent Contributions to the Roentgenologic Study of Cardiac Pathology . . . *Journal of American Osteopathic Assoc.* . . . October, 1948

Use of Maintenance Mercurials in Cardiac Failure . . . *Military Surgeon* . . . November, 1948

Dicumarol Therapy in Congestive Heart Failure . . . *New England Journal of Medicine* . . . November 4, 1948

Subacute Bacterial Endocarditis . . . *Journal of A.M.A.* . . . November 6, 1948

Newer Aspects of Clinical Electrocardiography . . . *N. Y. State Journal of Medicine* . . . November 15, 1948

Renal Function Before and After Surgical Resection of Coarctation of the Aorta . . . *Bulletin of the Johns Hopkins Hospital* . . . November, 1948

Physiological Studies in Congenital Heart Disease . . . *Bulletin of the Johns Hopkins Hospital* . . . November, 1948

CHEMOTHERAPY

Symptoms Modified by Chemotherapy . . . *Journal of A.M.A.* . . . October 30, 1948

Chemotherapy of Cancer . . . *British Medical Journal* . . . November 6, 1948

Chemotherapeutic Agents in General Surgery . . . *Journal of the Iowa State Medical Society* . . . November, 1948

DERMATOLOGY

Epidermophytoses: Their Causes and Therapy . . . *American Professional Pharmacist* . . . September, 1948

Treatment of Scabies . . . *Journal of A.M.A.* . . . October 23, 1948

Treatment of Cancer of Skin . . . *Journal of A.M.A.* . . . October 23, 1948

Dermatitis Venenata Due to Plants . . . *Journal of A.M.A.* . . . October 23, 1948

Sarcoidosis . . . *New England Journal of Medicine* . . . October 23, 1948

Malignant Melanoma . . . *Military Surgeon* . . . November, 1948

Diagnosis of Tuberculoderms . . . *Journal of A.M.A.* . . . November 6, 1948

Dermatitis from Contact with Moths . . . *Journal of A.M.A.* November 6, 1948

Erythema Multiforme . . . *N. Y. State Journal of Medicine* . . . November 15, 1948

DIABETES

The Unknown Diabetic . . . *Journal of A.M.A.* . . . October 2, 1948

Vascular Complications of Diabetes . . . *Journal of A.M.A.* . . . October 2, 1948

Insulin and Diet . . . *Journal of A.M.A.* . . . October 2, 1948

Capillary Fragility and Diabetic Retinitis . . . *Modern Medicine* . . . October 1, 1948

DISEASE

Fever in the United States . . . *Modern Medicine* . . . October 1, 1948

Fever: Three Cases of Laboratory Infection . . . *Public Health Reports* . . . October 15, 1948

Rickettsialpox . . . *New York State Journal of Medicine* . . . October 15, 1948

Fever Infection in Spinose Ear Tick . . . *Public Health Reports* . . . November 12, 1948

What's New in Communicable Diseases . . . *California Medicine* . . . November, 1948

ENDICRINOLOGY

Lymphadenoid Goitre . . . *British Journal of Surgery* . . . July, 1948

Treatment of Endocrine Infertility in the Female . . . *Medical Woman's Journal* . . . October, 1948

Thyroid Surgery . . . *Virginia Medical Monthly* . . . November, 1948

EPILEPSY

The Treatment of Epilepsy . . . *Pennsylvania Medical Journal* . . . October, 1948

Surgical Treatment of Epilepsy . . . *Journal of American Osteopathic Assoc.* . . . October, 1948

Elusive Mental Cases: The Epileptic Personality . . . *N. Y. State Journal of Medicine* . . . November 15, 1948

Mesantoin in Severe Epilepsy . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948

GASTROENTEROLOGY

Gas Cysts of the Intestine . . . *British Journal of Surgery* . . . July, 1948

Congenital Obstruction of the Colon in an Adult . . . *British Journal of Surgery* . . . July, 1948

Study of Peptic Ulcer in Nigeria . . . *British Journal of Surgery* . . . July, 1948

Case of Intussusception Caused by Endometriosis of Ileum . . . *British Journal of Surgery* . . . July, 1948

Cecal Fecolith . . . *British Journal of Surgery* . . . July, 1948

Two Cases of Volvulus of Stomach in Diaphragmatic Hernia . . . *British Journal of Surgery* . . . July, 1948

Histopathology of Semisquamous Epithelial Layer in Small Intestine . . . *British Journal of Surgery* . . . July, 1948

Intussusception in Adults Due to Carcinoma of the Colon . . . *British Medical Journal* . . . October 30, 1948

Diagnosis and Management of Postcholecystectomy Syndrome . . . *New York State Journal of Medicine* . . . October 15, 1948

Acute Pancreatitis . . . *New York State Journal of Medicine* . . . October 15, 1948

Enterograstrone and Duodenal Ulcer . . . *Journal of A.M.A.* . . . October 23, 1948

Intussusception in Childhood . . . *New England Journal of Medicine* . . . October 28, 1948

Mesenteric Vascular Occlusion . . . *Military Surgeon* . . . November, 1948

Ulcer Problem among Military Personnel . . . *Military Surgeon* . . . November, 1948

Closed-Loop Obstruction of Ascending Colon . . . *New England Journal of Medicine* . . . November 4, 1948

Hodgkin's Disease Confined to the Jejunum . . . *British Medical Journal* . . . November 6, 1948

Gastroenterology and Surgery . . . *Journal of A.M.A.* . . . November 13, 1948

Peptic Ulcer Problem . . . *Journal of A.M.A.* . . . November 13, 1948

The Clinical Application of Some Aspects of the Gastric Cancer Problem . . . *Rocky Mountain Medical Journal* . . . November, 1948

Some Aspects of the Gastric Cancer Problem in Relation to Diagnosis, Treatment and Prognosis . . . *Rocky Mountain Medical Journal* . . . November, 1948

Some Diagnostic and Therapeutic Techniques in Cystic Fibrosis of the Pancreas . . . *California Medicine* . . . November, 1948

The Place of the Non-Operative Treatment in the Therapy of Perforated Peptic Ulcer . . . *California Medicine* . . . November, 1948

Management of Acute Peritonitis . . . *California Medicine* . . . November, 1948

Cancer of the Left Side of the Colon . . . *Journal of the Iowa State Medical Society* . . . November, 1948

Gastrojejunal Ulcer After Subtotal Gastrectomy for Duodenal Ulcer . . . *Journal Missouri State Medical Association* . . . November, 1948

Mesenteric Vascular Occlusion—Report of two cases of Successful Resection . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948

GENERAL ARTICLES

Educating Your Tired Patient . . . *Clinical Medicine* . . . October, 1948

Importance of Heredity in Medical Disorders . . . *New York Physician* . . . September, 1948

Health Department and Food . . . *Journal of A.M.A.* . . . October 2, 1948

For Manners Are Not Idle . . . *New York Medicine* . . . October 20, 1948

United States Health Missions in Liberia . . . *Public Health Reports* . . . October 15, 1948
Chronic Illness . . . *Medical Journal of Australia* . . . October 16, 1948
Criticism of Automotive Engineering . . . *Journal of A.M.A.* . . . October 30, 1948
Photographic Museum . . . *New England Journal of Medicine* . . . November 11, 1948
Industrial Sickness Absenteeism . . . *Public Health Reports* . . . November 12, 1948
Complications from the Use of Plastic Intravenous Tubing . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948
Rehabilitation of the Injured . . . *Medical Journal of Australia* . . . October 9, 1948

GENITOURINARY

Artificial Insemination . . . *Urologic & Cutaneous Review* . . . October, 1948
Why Sterility? . . . *Urologic & Cutaneous Review* . . . October, 1948
Evaluation of Male Infertility . . . *Urologic & Cutaneous Review* . . . October, 1948
Liver-Gonadal Syndromes as Cause of Sterility . . . *Urologic & Cutaneous Review* . . . October, 1948
Surgery in the Treatment of Sterility . . . *Urologic & Cutaneous Review* . . . October, 1948
Terminology of Sperm Pathology . . . *Urologic & Cutaneous Review* . . . October, 1948
Effects of Radiation on Germ Plasm . . . *Urologic & Cutaneous Review* . . . October, 1948
Injury of Vena Cava During Nephrectomy . . . *Urologic & Cutaneous Review* . . . October, 1948
Grave Hemorrhages Provoked by Solitary Lipoma Having Perforated the Capsule of Superior Pole of Kidney . . . *Urologic & Cutaneous Review* . . . October, 1948
Interstitial-Cell Tumors of Testicle . . . *British Journal of Surgery* . . . July, 1948
Bacterial Endocarditis Following Urethral Manipulation . . . *New England Journal of Medicine* . . . November 4, 1948
Present Statis of Our Knowledge Regarding Malignant Disease of the Prostate Gland and Tumors of the Urinary Bladder . . . *Rocky Mountain Medical Journal* . . . November, 1948
The Use of Antibiotics in the Treatment of the More Common Urinary Tract Infections . . . *Journal of the Iowa State Medical Society* . . . November, 1948
Epidural Anesthesia in Genito-Urinary Surgery . . . *Urologic and Cutaneous Review* . . . November, 1948
Millin's Retropubic Prostatectomy . . . *Urologic and Cutaneous Review* . . . November, 1948
Disturbances of Urinary Defluxion at the Renal Pelvis and the Upper Ureter . . . *Urologic and Cutaneous Review* . . . November, 1948
Oxidized Cellulose in Suprapubic Prostatectomy . . . *Urologic and Cutaneous Review* . . . November, 1948
The Diagnosis and Treatment of Neurosyphilis with Negative Blood and Spinal Fluid Wassermans . . . *Virginia Medical Monthly* . . . November, 1948

HEMATOLOGY

Hypertensin in the Systemic Blood of Animals with Experimental Renal Hypertension . . . *Journal of Experimental Medicine* . . . October, 1948
Studies on a Proteolytic Enzyme in Human Plasma . . . *Journal of Experimental Medicine* . . . October, 1948
Kinetic Studies on Immune Hemolysis . . . *Journal of Experimental Medicine* . . . October, 1948
Useful Drugs in Hypertension . . . *New York Physician* . . . September, 1948
Hereditary Haemorrhagic Telangiectasia . . . *British Medical Journal* . . . October, 1948
Blood Cholinesterase in Pernicious Anemia . . . *Modern Medicine* . . . October 1, 1948
Selection of Hypertensive Patients for Sympathectomy . . . *N. Y. State Journal of Medicine* . . . October 15, 1948
Thiocyanate Therapy in Hypertension . . . *Journal of A.M.A.* . . . October 23, 1948
Pygopagus Twins with Hypertension . . . *Journal of A.M.A.* . . . October 30, 1948
Relation of Vascular Disease to Hypertensive State . . . *New England Journal of Medicine* . . . November 11, 1948
Hypertension and Postoperative Results Following Sympathectomy . . . *Journal of Missouri State Medical Assoc.* . . . November, 1948
Dangers of Local External Heat and Trauma to Ischemic Tissues in Peripheral Vascular Diseases . . . *California Medicine* . . . November, 1948
Clinical Symposium—The Management of Peripheral Vascular Insufficiency in Arteriosclerosis Obliterans . . . *California Medicine* . . . November, 1948
Blood Derivatives . . . *Journal of A.M.A.* . . . November 20, 1948
Idiopathic Pernicious Anemia . . . *Journal of A.M.A.* . . . November 20, 1948
The Importance of Hematuria . . . *Virginia Medical Monthly* . . . November, 1948

HEPATOLOGY

Protection Against Serum Hepatitis . . . *Journal of A.M.A.* . . . October 2, 1948
Liver-Gonadal Syndromes as Cause of Sterility . . . *Urologic & Cutaneous Review* . . . October, 1948
Polarization and Depolarization of Biliary Secretion . . . *Medical Woman's Journal* . . . October, 1948
Guided Liver Biopsy through Laparotomy Incision . . . *New York State Journal of Medicine* . . . October 15, 1948
Hepatic Cirrhosis . . . *Journal of A. M. A.* . . . October 23, 1948

INFLUENZA

Production of a Persistent Alteration in Influenza Virus by Lanthanum or Ultraviolet Irradiation . . . *Journal of Experimental Medicine* . . . October, 1948
Reactions Between Influenza Virus and a Component of Allantoic Fluid . . . *Journal of Experimental Medicine* . . . October, 1948
Treatment of Influenzal Meningitis . . . *Illinois Medical Journal* . . . October. 1948
Primary Atypical Pneumonia and Influenza . . . *Modern Medicine* . . . October 1, 1948

LYMPHANGIOLOGY

Atypical Crohn's Disease . . . *British Journal of Surgery* . . . July, 1948
Papillary Cystadenoma Lymphomatosum . . . *Journal Missouri State Medical Association* . . . November, 1948

MENINGITIS

Treatment of Influenzal Meningitis . . . *Illinois Medical Journal* . . . October, 1948

MUSCLES

New Drugs for Muscle Relaxation . . . *American Professional Pharmacist* . . . September, 1948
Ruptured Quadriceps . . . *British Journal of Surgery* . . . July, 1948
Scalenus Anticus Syndrome . . . *N. Y. State Journal of Medicine* . . . November 1, 1948

NEUROLOGY

Early Recognition and Treatment of More Common Neurologic Diseases . . . *Ohio State Medical Journal* . . . November, 1948
Neuralgia . . . *The Trained Nurse* . . . November, 1948
The Superior and Recurrent Laryngeal Nerves . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948

NUTRITION

Significance of Proteins in Nutrition . . . *British Medical Journal* . . . October 23, 1948

OBSTETRICS & GYNECOLOGY

Unusual Experiences in Practice of Obstetrics and Gynecology in China . . . *Northwest Medicine* . . . October, 1948
Risks and Problems of Pathology in Pregnancy and Labor . . . *Southern Medicine & Surgery* . . . October, 1948
Technic of Low Cervical Cesarean Section . . . *Clinical Medicine* . . . October, 1948
Royal Prince Alfred Hospital Cancer of the Uterus Follow-Up . . . *Medical Journal of Australia* . . . September, 1948

Pressure Treatment of Blocked Fallopian Tubes . . . *Urologic & Cutaneous Review* . . . October, 1948
Tubal Patency Tests . . . *Urologic & Cutaneous Review* . . . October, 1948
Use of Vaginal Smears in Study of Sterility . . . *Urologic & Cutaneous Review* . . . October, 1948
Ovulation Timing by Basal Body Temperature Curves . . . *Urologic & Cutaneous Review* . . . October, 1948
Diagnosis and Treatment of Endocrine Factors in Female Sterility . . . *Urologic & Cutaneous Review* . . . October, 1948
Advantages of Hysterosalpinogography under Fluoroscopic Control . . . *Urologic & Cutaneous Review* . . . October, 1948
Premature Infant Program in Colorado . . . *The Mother* . . . October, 1948
Prison Babies . . . *The Mother* . . . October, 1948
Activities of a Maternal Health Consultant . . . *The Mother* October, 1948
Saddle Block Anesthesia in Obstetrics . . . *Journal of American Osteopathic Assoc.* . . . October, 1948
Management of Labor . . . *Illinois Medical Journal* . . . October, 1948
Treatment of Endocrine Infertility in the Female . . . *Medical Woman's Journal* . . . October, 1948
Head Extractor for Low Cesarean Section . . . *Modern Medicine* . . . October 1, 1948
Technic of Implantation of Tubes . . . *Modern Medicine* October 1, 1948
Thyroid in Pregnancy . . . *Modern Medicine* . . . October 15, 1948
Treatment of Cystic Ovaries . . . *Modern Medicine* . . . October 15, 1948
Stress Incontinence . . . *Modern Medicine* . . . October 15, 1948
Hormones for Menstrual Herpes . . . *Modern Medicine* . . . October 15, 1948
Primary Post-Partum Haemorrhage . . . *British Medical Journal* . . . October 23, 1948
Prediction of Human Ovulation . . . *Journal of A. M. A.* October 23, 1948
Gynecological Problems in Marine Hospital . . . *Military Surgeon* . . . November, 1948
Cord Complications during Pregnancy and Labour . . . *British Medical Journal* . . . November 6, 1948
Double Uterus with Horn Menstruating into Abdomen . . . *New England Journal of Medicine* . . . November 11, 1948
Brown Modification of Wiltberger-Miller Pregnancy Test . . . *Ohio State Medical Journal* . . . November, 1948
Office Gynecology . . . *Journal of Missouri State Medical Assoc.* . . . November, 1948
Dysmenorrhea . . . *Trained Nurse* . . . November, 1948
Transurethral Resection of the Female Bladder Neck . . . *Urologic and Cutaneous Review* . . . November, 1948
Vaginal Cervical Smear in the Diagnosis of Uterine Cancer . . . *Virginia Medical Monthly* . . . November, 1948

OPHTHALMOLOGY

Diagnosis and Therapy of Common External Diseases of the Eye . . . *Northwest Medicine* . . . October, 1948
Keratoplasty or Keratectomy . . . *Northwest Medicine* . . . October, 1948
Hypotensive Action of Dibenamine in Glaucoma . . . *Northwest Medicine* . . . October, 1948
Time for Eye Surgery . . . *New York Physician* . . . September, 1948
Base Pressure in Primary Glaucoma . . . *Modern Medicine* . . . October 1, 1948
Solar Burns of the Fundi . . . *N. Y. State Journal of Medicine* . . . November 15, 1948
The Lacrimal Gland . . . *Journal of A.M.A.* . . . November 13, 1948
Rubella Retinitis in Tasmania . . . *Medical Journal of Australia* . . . October 9, 1948
Results With Contact Lenses . . . *Medical Journal of Australia* . . . October 9, 1948
Recurrent Intraocular Hemorrhage . . . *Medical Journal of Australia* . . . October 9, 1948
Congenital Glaucoma . . . *Medical Journal of Australia* . . .

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Neoplasma of the Eyelids . . . *Medical Journal of Australia* . . . October 9, 1948
Ophthalmology in General Medicine . . . *Medical Journal of Australia* . . . October 9, 1948
Retrolental Fibroplasia . . . *Medical Journal of Australia* . . . October 9, 1948
The Ophthalmologist in Industry . . . *Medical Journal of Australia* . . . October 9, 1948
Results of Trephine Operations . . . *Medical Journal of Australia* . . . October 9, 1948
Glaucomatous Uveitis . . . *Medical Journal of Australia* . . . October 9, 1948

ORTHOPEDICS, OSTEOPATHY

Chronic Megakaryocytic Myelosis . . . *Northwest Medicine* . . . October, 1948
Hyperplastic Callus Formation in Osteogenesis Imperfecta . . . *British Journal of Surgery* . . . July, 1948
Solitary Plasmocytoma of Bone with Renal Changes . . . *British Journal of Surgery* . . . July, 1948
Case of Polyostotic Fibrous Dysplasia . . . *British Journal of Surgery* . . . July, 1948
Feet and Dynamic Posture . . . *Journal of American Osteopathic Assoc.* . . . October, 1948
Management of Simple and Severe Sprains . . . *Journal of American Osteopathic Assoc.* . . . October, 1948
Corrective Osteotomy and Capsulectomy in Treatment of Malunion of Metacarpal Fractures . . . *Military Surgeon* . . . November, 1948
Sympathectomy in Treatment of Chronic Osteomyelitis . . . *Military Surgeon* . . . November, 1948
Treatment of Bone Sarcoma by Resection and Bone Transplantation . . . *Ohio State Medical Journal* . . . November, 1948
The Diagnosis of Bone Sarcoma . . . *Rocky Mountain Medical Journal* . . . November, 1948
Treatment of Bone Sarcoma . . . *Rocky Mountain Medical Journal* . . . November, 1948
The Injured Back . . . *Medical Journal of Australia* . . . October 9, 1948
The Treatment of Fractures . . . *Medical Journal of Australia* . . . October 9, 1948

OTOLARYNGOLOGY

Acute Infections of the Neck . . . *Modern Medicine* . . . October 1, 1948
Allergy in Oto-Rhino-Laryngology . . . *Medical Journal of Australia* . . . October 9, 1948
The Surgery of Otosclerosis . . . *Medical Journal of Australia* . . . October 9, 1948
Tracheotomy in Acute Poliomyelitis . . . *Medical Journal of Australia* . . . October 9, 1948
Audiometers and Hearing Aids . . . *Medical Journal of Australia* . . . October 9, 1948
Aural, Antral and Tracheal Fistulae . . . *Medical Journal of Australia* . . . October 9, 1948
Fluid Therapy in Oto-Laryngology . . . *Medical Journal of Australia* . . . October 9, 1948
Sphenoidal Sinusitis in Adults . . . *Medical Journal of Australia* . . . October 9, 1948
Intranasal Gliomata . . . *Medical Journal of Australia* . . . October 9, 1948

PATHOLOGY

Clinicopathologic Conference . . . *Clinical Medicine* . . . October, 1948
Clinicopathological Conference . . . *Military Surgeon* . . . November, 1948
Clinical-Pathological Conference . . . *California Medicine* . . . November, 1948
Clinical Pathological Conferences of Northwestern University Medical School . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948
Cardiac Infarction and Coronary Disease in Post-Mortem Examinations . . . *Medical Journal of Australia* . . . October 9, 1948

PEDIATRICS

Melanoma of Childhood . . . *Modern Medicine* . . . October 1, 1948
Pediatric Staff Meeting, Hahnemann Hospital . . . *The Hahnemannian Monthly* . . . October, 1948
Hahnemann Pediatric Conference . . . *The Hahnemannian Monthly* . . . October, 1948
Naphazoline Hydrochloride Poisoning in Infancy . . .

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Northwest Medicine . . . October, 1948
Role of Developmental Diagnosis in Pediatrics . . . *Illinois Medical Journal* . . . October, 1948
Maternal and Infantile Welfare . . . *Medical Woman's Journal* . . . October, 1948
Progress in State Legislation to Protect Babies from Syphilis . . . *Journal of Social Hygiene* . . . November, 1948
Experimental Use of Testosterone Compounds in Premature Infants . . . *California Medicine* . . . November, 1948
Appendicitis in Childhood . . . *Medical Journal of Australia* . . . October 9, 1948
Acute Haematogenous Osteomyelitis . . . *Medical Journal of Australia* . . . October 9, 1948
Empyema in Infancy and Childhood . . . *Medical Journal of Australia* . . . October 9, 1948
Medical Problems of Infancy; Infant Welfare . . . *Medical Journal of Australia* . . . October 9, 1948
A Substitute for Buttermilk in Infant Feeding . . . *Medical Journal of Australia* . . . October 9, 1948
Pink Disease . . . *Medical Journal of Australia* . . . October 9, 1948
Kidney Pain in Children . . . *Medical Journal of Australia* . . . October 9, 1948
Hyperkinetic Babies . . . *Medical Journal of Australia* . . . October 9, 1948
Human Beings and Their Young . . . *Medical Journal of Australia* . . . October 9, 1948
Penicillin and Streptomycin in Influenzal Meningitis . . . *Medical Journal of Australia* . . . October 9, 1948

PHARMACOLOGY

Aureomycin in Virus Diseases . . . *American Professional Pharmacist* . . . September, 1948
What's New in the Sulfonamide Drugs . . . *American Professional Pharmacist* . . . September, 1948
Studies in Oral Administration of Penicillin . . . *Illinois Medical Journal* . . . October, 1948
Penicillin Sensitivity . . . *Journal of A.M.A.* . . . October 30, 1948
Streptomycin in Topical Therapy . . . *Journal of A.M.A.* . . . October 30, 1948
Current Pharmacology . . . *Journal of A.M.A.* . . . November 6, 1948
Ethinyl Oestradiol . . . *British Medical Journal* . . . November 6, 1948
Use of Dibenamine in Pheochromocytoma . . . *New England Journal of Medicine* . . . November 11, 1948
Guide to Use of Procaine Penicillin in Hospital Practice . . . *N. Y. State Journal of Medicine* . . . November 15, 1948
Dicumarol in Acute Coronary Occlusion . . . *The New York Physician* . . . November, 1948
Caronamide and Penicillin . . . *Journal of A.M.A.* . . . November 20, 1948
The Antibiotics in Internal Medicine . . . *Journal of the Iowa State Medical Society* . . . November, 1948
The Use of Antibiotics in the Treatment of the More Common Urinary Tract Infections . . . *Journal of the Iowa State Medical Society* . . . November, 1948
Propylthiouracil in "Graves' Disease" . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948

PROCTOLOGY

Healing of Anorectal Wounds . . . *Modern Medicine* . . . October 1, 1948
Errors in Proctology . . . *Modern Medicine* . . . October 15, 1948
Common Proctologic Conditions . . . *Journal Missouri State Medical Assoc.* . . . November, 1948
Cancer of the Rectum . . . *Rocky Mountain Medical Journal* . . . November, 1948

PSYCHIATRY

Finger Capillaries in Psychoses . . . *Modern Medicine* . . . October 1, 1948
Constitutional Emotional and Cultural Factors Producing Mental Deficiency . . . *Illinois Medical Journal* . . . October, 1948
Outlook for Patients Admitted to Mental Hospital after Age of Sixty . . . *N. Y. State Journal of Medicine* . . . November 1, 1948
Electronarcosis in Psychiatric Therapy . . . *N. Y. State Journal of Medicine* . . . November 1, 1948
Elusive Mental Cases: The Epileptic Personality . . . *N. Y. State Journal of Medicine* . . . November 15, 1948
What is Psychotherapy . . . *Journal of A.M.A.* . . . November 20, 1948
The Psychosomatic Effects of Chronic Invalidism . . . *Virginia Medical Monthly* . . . November, 1948

PSYCHOSOMATIC MEDICINE

Psychosomatic Medicine: Problems in the General Hospital . . . *Southern Medicine & Surgery* . . . October, 1948
Psychosomatic Medicine: Clinical and Research Implications . . . *Mental Hygiene* . . . October, 1948

PULMONARY

Congenital Cystic Disease of the Lung . . . *Medical Journal of Australia* . . . September, 1948
Streptomycin Treatment of Pulmonary Tuberculosis . . . *British Medical Journal* . . . October 30, 1948
Pneumonia Not Responding to Penicillin . . . *Rhode Island Medical Journal* . . . October, 1948
Primary Atypical Pneumonia and Influenza . . . *Modern Medicine* . . . October 1, 1948
Streptomycin in Tuberculosis . . . *New York State Journal of Medicine* . . . October 15, 1948
Trends in Pulmonary Tuberculosis . . . *New England Journal of Medicine* . . . October 28, 1948
Use of Streptomycin in Treatment of Tuberculosis . . . *Military Surgeon* . . . November, 1948
Diffuse Progressive Interstitial Fibrosis of the Lungs . . . *Military Surgeon* . . . November, 1948
Neoplasms of the Lungs . . . *Military Surgeon* . . . November, 1948
"Rheumatoid Disease" with Joint and Pulmonary Manifestations . . . *British Medical Journal* . . . November 6, 1948
Pulmonary Carcinoma and Tuberculosis . . . *Journal of A. M. A.* . . . November 13, 1948
Streptomycin in Tuberculosis . . . *Journal of A. M. A.* . . . November 13, 1948
Case of Amebic Lung Abscess Treated with Emetine . . . *Ohio State Medical Journal* . . . November, 1948
The Eradication of Tuberculosis in Rural Areas . . . *Journal Missouri State Medical Association* . . . November, 1948
The Management of Acute and Chronic Pulmonary Abscess . . . *California Medicine* . . . November, 1948
Uses and Limitations of Streptomycin in Tuberculosis . . . *Journal of the Iowa State Medical Society* . . . November, 1948
Pulmonary Arterial and Arteriolar Sclerosis . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948

RADIOLOGY

Effects of Radiation on Germ Plasm . . .*Urologic & Cutaneous Review* . . . October, 1948
Place of Radiology in Our College Curriculum . . . *Journal of American Osteopathic Assoc.* . . . October, 1948
Roentgen and Radium Management of Uterine Malignancy . . . *Journal of American Osteopathic Assoc.* . . . October, 1948
Recent Contributions to the Roentgenologic Study of Cardiac Pathology . . . *Journal of American Osteopathic Assoc.* . . . October, 1948
Excretory Urography . . . *Journal of American Osteopathic Assoc.* . . . October, 1948
Simple Device for Serial Radiography . . . *Journal of American Osteopathic Assoc.* . . . October, 1948
Observations in Roentgen Pelvicephalometry . . . *Journal of American Osteopathic Assoc.* . . . October, 1948
Thoracic Shadows from Fat Pads . . . *Modern Medicine* . . . October 1, 1948
Cholangiographic Technic . . . *Modern Medicine* . . . October 1, 1948
Roentgen Therapy of Bursitis . . . *Virginia Medical Monthly* . . . November, 1948

RESPIRATORY

Inhalation of Penicillin Dust . . . *Journal of A. M. A.* . . . October 2, 1948

Oral Penicillin in Treatment of Acute Respiratory Infections . . . *Military Surgeon* . . . November, 1948

Irradiation of Lymphoid Tissue in Diseases of the Upper Respiratory Tract . . . *Bulletin of the Johns Hopkins Hospital* . . . November, 1948

RHINOLOGY

Treatment of Nasal Hemorrhage . . . *Clinical Medicine* . . . October, 1948

The Drop-I-Mizer . . . *Current Medical Digest* . . . October, 1948

Routine Technic of Typical Rhinoplasty . . . *Illinois Medical Journal* . . . October, 1948

Epistaxis . . . *Journal Missouri State Medical Association* . . . November, 1948

SKULL, BRAIN, SPINAL CORD, and SPINE

Studies on Acute Disseminated Encephalomyelitis Produced Experimentally in Rhesus Monkeys . . . *Journal of Experimental Medicine* . . . October, 1948

Tantalum in Repair of Traumatic Skull Defects . . . *British Journal of Surgery* . . . July, 1948

Operation of Prefrontal Leucotomy . . . *British Journal of Surgery* . . . July, 1948

Evaluation of Abdominal Conditions Simulating Spinal Disorders . . . *Journal of American Osteopathic Assoc.* . . . October, 1948

Sudden Death Due to Ependymoma of Cerebello-Pontine Angle . . . *British Medical Journal* . . . October 30, 1948

Poliomyelitis in England and Wales . . . *Public Health Reports* . . . October 15, 1948

Schizencephalies with Hydrocephalus . . . *N. Y. State Journal of Medicine* . . . November 1, 1948

Spinal Epidural Infection . . . *N. Y. State Journal of Medicine* . . . November 1, 1948

Practical Aspects of Cerebral Vascular Accidents . . . *N. Y. State Journal of Medicine* . . . November 1, 1948

Sphenopalatine Ganglion Block for Relief of Painful Vascular and Muscular Spasm—Lumbosacral Pain . . . *N. Y. State Journal of Medicine* . . . November 15, 1948

Brain Tumors: Diagnosis and Treatment . . . *Rocky Mountain Medical Journal* . . . November, 1948

Tumors of the Spinal Cord: Symptoms Differential Diagnosis and Treatment . . . *Rocky Mountain Medical Journal,* November, 1948

The Role of Tissue Permeability with Particular Reference to the Blood-Brain Barrier in Diseases of the Central Nervous System . . . *California Medicine* . . . November, 1948

Analysis of Fatal Cases of Poliomyelitis . . . *California Medicine* . . . November, 1948

Poliomyelitis Virus . . . *Journal of A. M. A.* . . . November 20, 1948

Do Vasoconstrictors Prolong the Action of Spinal Anesthesia . . . *Urologic and Cutaneous Review* . . . November, 1948

Tracheotomy in Acute Poliomyelitis . . . *Medical Journal of Australia* . . . October 9, 1948

SURGERY

Intubation of the Duodenum . . . *Modern Medicine* . . . October 1, 1948

Amputation by Pressure Necrosis . . . *Modern Medicine* . . . October 1, 1948

Management of Ileosigmoid Fistula . . . *Modern Medicine* . . . October 1, 1948

Chronically Ill Surgical Patient . . . *Northwest Medicine* . . . October, 1948

Indications and Contraindications of Electrosurgery . . . *Clinical Medicine* . . . October, 1948

Surgery in Treatment of Sterility . . . *Urologic & Cutaneous Review* . . . October, 1948

Effective Procedures in Treatment of Injured Hands . . . *Rhode Island Medical Journal* . . . October, 1948

Radical Mastectomy . . . *British Journal of Surgery* . . . July, 1948

Rupture and Suture of Femoral Vein . . . *British Journal of Surgery* . . . July, 1948

Surgical Treatment of Epilepsy . . . *Journal of American Osteopathic Assoc.* . . . October, 1948

Hyperparathyroidism . . . *Modern Medicine* . . . October

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Venous Thrombosis . . . *Modern Medicine* . . . October 15, 1948
Herpes Zoster . . . *Modern Medicine* . . . October 15, 1948
Problem of Decubitus Ulcers . . . *Modern Medicine* . . . October 15, 1948
Repair of Femoral Herniae . . . *British Medical Journal* . . . October 23, 1948
Repair of Femoral Hernia by "Postage Stamp" Fascial Graft . . . *British Medical Journal* . . . October 23, 1948
Thoracoplasty after Twenty Years . . . *New England Journal of Medicine* . . . October 28, 1948
Surgical Treatment of Varicose Veins . . . *Military Surgeon* . . . November, 1948
Meniere's Syndrome . . . *British Medical Journal* . . . November 6, 1948
Gastroenterology and Surgery . . . *Journal of A.M.A.* . . . November 13, 1948
Surgery of the Spleen . . . *Journal of Missouri State Medical Assoc.* . . . November, 1948
Chemotherapeutic Agents in General Surgery . . . *Journal of the Iowa State Medical Society* . . . November, 1948
Anesthesia for Urological Surgery . . . *Urologic and Cutaneous Review* . . . November, 1948
Epidural Anesthesia in Genito-Urinary Surgery . . .*Urologic and Cutaneous Review* . . . November, 1948
Lucaine as a Spinal Anesthetic Agent for Urolotical Surgery . . . *Urologic and Cutaneous Review* . . . November, 1948
Pentothal and Pentothal-Curare Nitrous Oxide Anesthesia in Urological Surgery . . . *Urologic and Cutaneous Review* . . . November, 1948
The Modern Trend in Anesthesia in Urologica Surgery . . . *Urologic and Cutaneous Review* . . . November, 1948
Thyroid Surgery . . . *Virginia Medical Monthly* . . . November, 1948
A New Clamp for Surgical Division of the Patent Ductus Arteriosup . . . *Northwestern University Quarterly Bulletin* . . . Winter, 1948
The Surgery of Otosclerosis . . . *Medical Journal of Australia* . . . October 9, 1948

TUBERCLES

The Role of the "Wax" of the Tubercle Bacillus in Establishing Delayed Hypersensitivity . . . *Journal of Experimental Medicine* . . . October 19, 1948

TUBERCULOSIS

Streptomycin Treatment of Pulmonary Tuberculosis . . . *British Medical Journal* . . . October 30, 1948
Streptomycin in Tuberculosis . . . *New York State Journal of Medicine* . . . October 15, 1948
Trends in Pulmonary Tuberculosis . . . *New England Journal of Medicine* . . . October 28, 1948
Use of Streptomycin in Treatment of Tuberculosis . . . *Military Surgeon* . . . November, 1948
Pulmonary Carcinoma and Tuberculosis . . . *Journal of A.M.A.* . . . November 13, 1948
Streptomycin in Tuberculosis . . . *Journal of A.M.A.* . . . November 13, 1948
The Eradication of Tuberculosis in Rural Areas . . . *Journal Missouri State Medical Assoc.* . . . November, 1948
Uses and Limitations of Streptomycin in Tuberculosis . . . *Journal of the Iowa State Medical Society* . . . November, 1948
Chaulmoogra Oil in the Treatment of Urinary Tuberculosis . . . *Urologic and Cutaneous Review* . . . November, 1948
Immunity in Tuberculosis . . . *Medical Journal of Australia* October 9, 1948

UROLOGY

Hemostatic Bag . . . *Modern Medicine* . . . October 1, 1948
Urological Conference . . . *The Hahnemannian Monthly* . . . October, 1948
Intraperitoneal Rupture of Bladder . . . *Military Surgeon*

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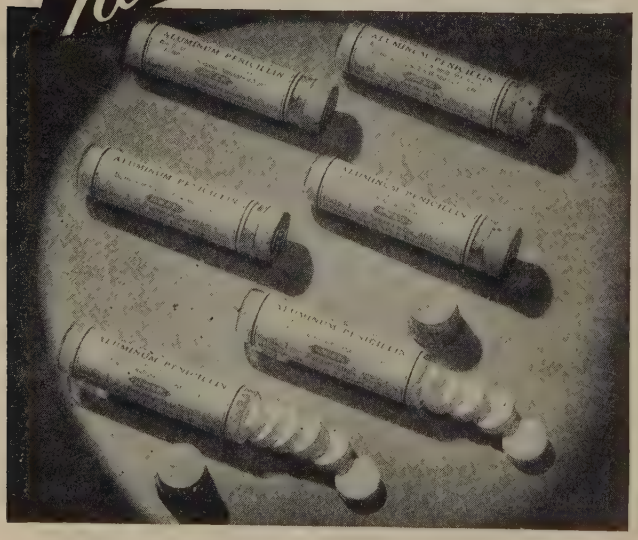

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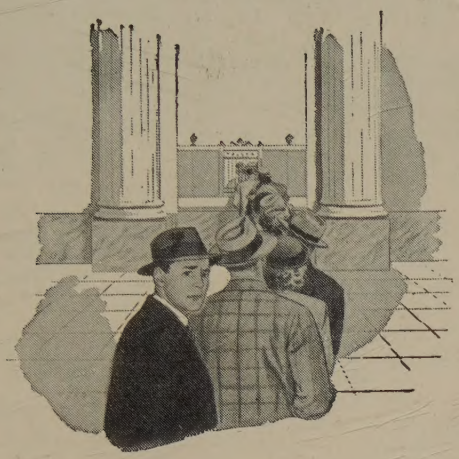

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. . . November, 1948

Estimation of Urinary Urobilinogen by Fluorescence . . . *Military Surgeon* . . . November, 1948

Acute Urinary Infections in Infants and Children . . . *N. Y. State Journal of Medicine* . . . November 1, 1948

Management of Anuria in Acute Mercurial Intoxication . . . *N. Y. State Journal of Medicine* . . . November 1, 1948

Acute Renal Insufficiency Due to Lower-Nephron Nephrosis . . . *New England Journal of Medicine* . . . November 4, 1948

The Important Features in the Diagnosis and Treatment of Tumors of the Kidney . . . *Rocky Mountain Medical Journal* . . . November, 1948

Anesthesia in Urology . . . *Urologic and Cutaneous Review* . . . November, 1948

Anesthesia for Urological Surgery . . . *Urologic and Cutaneous Review* . . . November, 1948

Lucaine as a Spinal Anesthetic Agent for Urological Surgery . . . *Urologic and Cutaneous Review* . . . November, 1948

Penthothal and Penthothal-Curare Nitrous Oxide Anesthesia in Urological Surgery . . . *Urologic and Cutaneous Review* . . . November, 1948

The Modern Trend in Anesthesia in Urological Surgery . . . *Urologic and Cutaneous Review* . . . November, 1948

Chaulmoogra Oil in the Treatment of Urinary Tuberculosis . . . *Urologic and Cutaneous Review* . . . November, 1948

The Twin-Stitch Technic for Urinary Incontinence . . . *Urologic and Cutaneous Review* . . . November, 1948

The Importance of Hematuria . . . *Virginia Medical Monthly* . . . November, 1948

VIRUS

Aureomycin in Virus Diseases . . . *American Professional Pharmacist* . . . September, 1948

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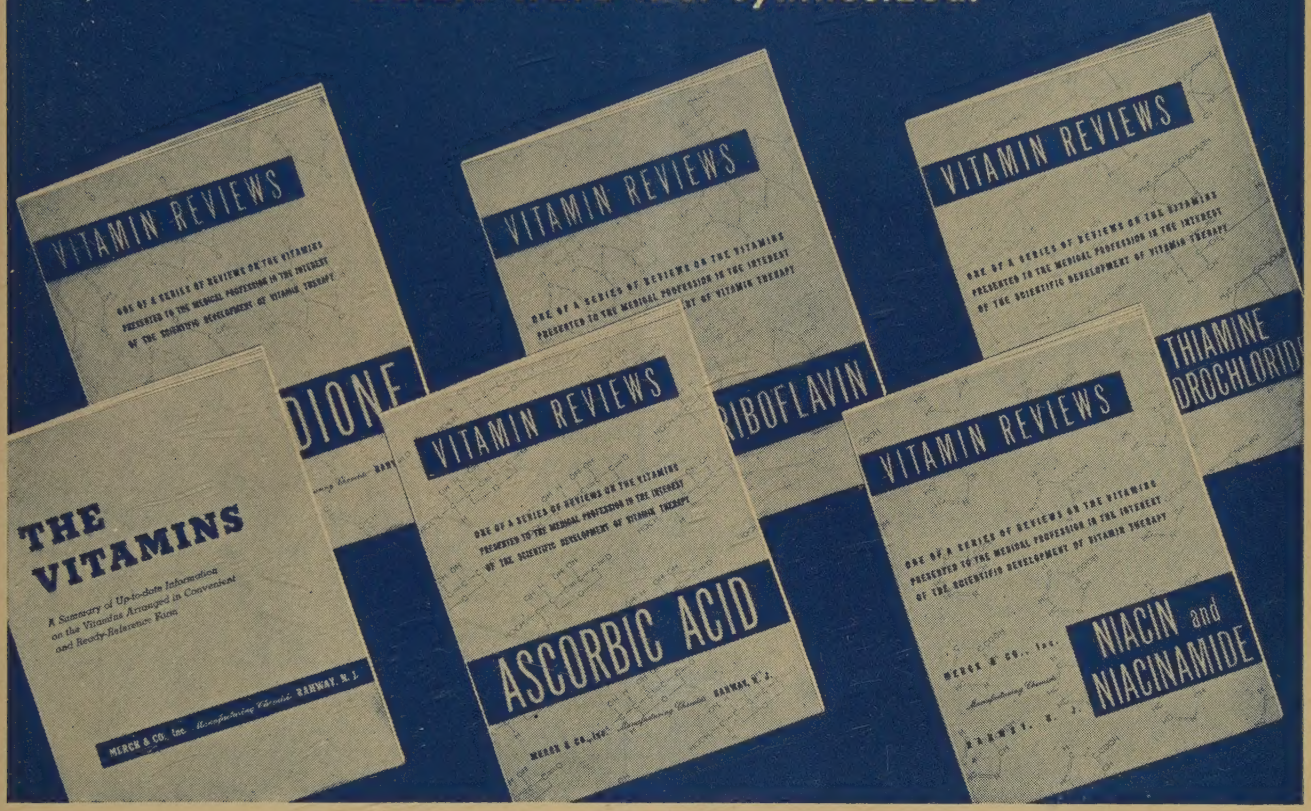

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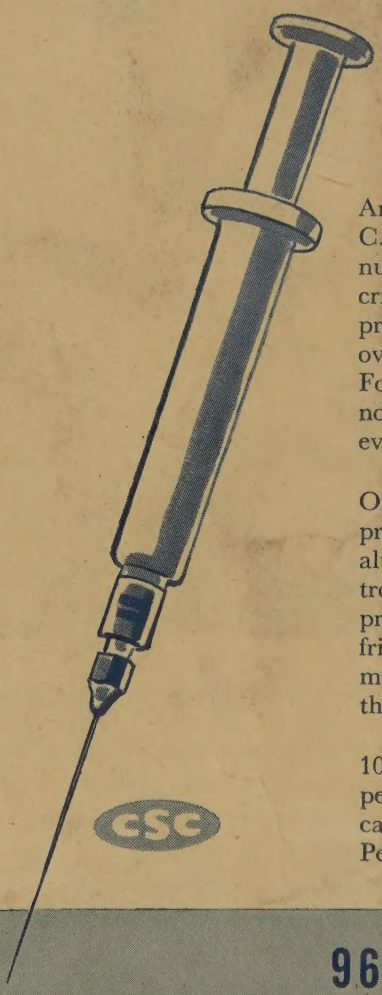

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